

AN ANALYSIS OF THE CURRENT CONCEPT FOR EMPLOYMENT OF THE
AIRMOBILE DIVISION AGAINST INSURGENT FORCES
IN AN UNDERDEVELOPED AREA

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements of the
degree

MASTER OF MILITARY ART AND SCIENCE

by
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Commitment of the 1st Cavalry Division (Airmobile) to the war in South Vietnam in 1965 provided an opportunity to determine if the concepts developed in training and testing were valid. The division has eight infantry battalions, six of which may be supported at any one time by an assault helicopter company. Parallel radio nets, three air cavalry troops, pathfinders, reconnaissance platoons, infantry patrols, an aerial surveillance platoon, and heliborne commanders permit extensive reconnaissance. Near perfect teamwork is required and great dependence is placed on accurate intelligence. Vietnam is an environment hostile to the airmobile division. Insurgent doctrine describes the struggle in Vietnam as mobile warfare, a condition of war analogous to guerrilla warfare but fought by battalion size and larger forces. Insurgent forces have significant combat power and pose a meaningful challenge to an airmobile task force seeking to locate and destroy them. The air assault concept places emphasis on the offensive capabilities of the airmobile division, occasionally without regard for its limitations. Other levels of insurgent conflict and areas of the world are considered, and it is concluded that the concept is generally applicable to airmobile operations against insurgent forces in other areas.

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ABSTRACT

The commitment of the 1st Cavalry Division (Airmobile) to the insurgent war in South Vietnam in July of 1965 provided an opportunity to determine if the concepts developed in training and testing were valid in the environment and against the enemy of that country. Concurrent with the modifications being made to these concepts as a result of combat operations, this thesis is an academic attempt to analyze the air assault concept.

Organized along lines paralleling the ROAD infantry division, the airmobile division has certain modifications to give it a large scale airmobile capability. There are eight infantry battalions, six of which may be supported at any one time by an assault helicopter company (twenty UH-1D helicopters) that gives them a capability to maneuver rifle companies rapidly about the battlefield. Medium and heavy artillery are supplanted by aerial rocket artillery and increased reliance on close air support. Parallel radio nets over three modes (FM, AM-SSB, and UHF) permit superior communications. Three air cavalry troops, pathfinders, reconnaissance platoons, normal infantry patrols, an aerial

surveillance platoon, and heliborne commanders permit extensive aerial and ground reconnaissance. In balance, the airmobile division is vulnerable to air defensive fires and sensitive to adverse weather conditions. Near perfect teamwork is required to maintain the tempo inherent in airmobile operations. Great dependence is placed on timely and accurate intelligence in support of offensive operations and to protect airmobile task forces from hazardous situations.

South Vietnam is an environment hostile to the airmobile division. Rugged, forested mountains restrict landing zones and provide cover and concealment for the enemy; however, the flat and cultivated river plains offer flexibility in selecting landing zones and favor aerial observation. Coastal swamps afford the enemy defensible bases. Although aviation operations are possible at some time in nearly every day, seasonal periods of local fog, rain, and low clouds affect airmobile operations and close air support. The climate is debilitating to personnel and causes equipment deterioration. Caught in a generation of war, the native people are influenced by propaganda and terrorism to support and be the "eyes" of the insurgents. These obstacles can be overcome, but their effect is to reduce the combat power of the airmobile division and to make airmobile operations more difficult.

The tactics of insurgent forces are based on their numerically inferior strength which forces them to seek every advantage of geography and to avoid all battles except those in which their local superiority will permit a quick victory. Insurgent doctrine describes the struggle in Vietnam as mobile warfare, a condition of war analogous to guerrilla warfare but fought by battalion size and larger forces. The theory is simply "to fight when you can win and run when you cannot." Insurgent forces--inured to hardship, foot mobile, employing automatic weapons, mortars, and artillery, and making expert use of terrain--have significant combat power and pose a meaningful challenge to an airmobile task force seeking to locate and destroy them.

Airmobile operations offer opportunities for speed, flexibility, surprise, and exercise of initiative in battle; at the same time they demand superior intelligence and special consideration for security. The air assault concept places full emphasis on the offensive capabilities of the airmobile division, occasionally without regard for its limitations. Analysis of this concept in light of the capabilities and limitations of the airmobile division, characteristics of the area of operations, and strengths and weaknesses of the enemy reveals certain deficiencies. To overcome these deficiencies a modified concept is proposed.

The proposed concept requires that forces be essentially massed--employed in airmobile task forces of brigade and battalion size. Heavy reliance is placed on ground reconnaissance and indigenous sources. Airmobile forces endeavor to restrict the maneuver of a located insurgent force by fire and maneuver, seeking unopposed landings. Finally, the insurgent is destroyed by a coordinated ground attack to destroy or capture him.

Other levels of insurgent conflict and areas of the world are considered, and it is concluded that the proposed concept is generally applicable to airmobile operations against insurgent forces in other underdeveloped areas of the world. The airmobile division has a significant combat power advantage that, if intelligently employed, can bring victory in every battle. The concept which has emerged in this thesis is proposed for that purpose.

PREFACE

This thesis is dedicated to the officers and men of the 1st Cavalry Division (Airmobile) who fight in Vietnam today in defense of freedom and human dignity. It is an academic study intended as a supplement to their combat experience and a beginning point for one who would try to follow them.

Grateful acknowledgment must be made to Major Anthony P. De Luca and other officers of the graduate faculty who guided the development of this study and encouraged its completion. Final form would never have been achieved without the extensive and meticulous secretarial assistance of Mrs. Evelyn F. Randolph. Only because my wife has given loyal support and shared the burden of a hard year has this effort been possible. While acknowledging invaluable assistance, I remain solely responsible for any error in substance or form.

L. D. B.

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CHAPTER I

THE PROBLEM AND THE BACKGROUND

The significant question is not whether we can afford such organizations [as the airmobile division], but rather whether this nation . . . can afford NOT to have them . . . the most versatile forces that we can add to the United States Army.¹

--Lieutenant General C. W. G. Rich
Test Director, Project TEAM

In July 1965 the 11th Air Assault Division (Test) was redesignated the 1st Cavalry Division (Airmobile) and departed for the Republic of Vietnam. By September the division was engaged in offensive operations against insurgent forces in that country. Today, a few months later, this division is covering new ground with every stride. It is a new kind of division, the first in history organized, equipped, and trained for airmobile warfare. It is one of the first American units to fight in mobile warfare against insurgent forces in an underdeveloped area. Officers and men of the airmobile division are applying their imagination

¹U.S. Army Test, Evaluation and Control Group, Project TEAM [Test, Evaluation Air Mobility], Field Test Program: Army Air Mobility Concept, Vol. I: Basic Report (Fort Benning, Ga.: U.S. Army Combat Developments Command, 15 January 1965), p. 42.

and ingenuity on the battlefields of Vietnam to determine the best way of bringing its combat power to bear against the Viet Cong and units of the Army of the Democratic Republic of Vietnam (PAVN) that have invaded South Vietnam.

The Problem

This thesis is addressed to analyzing the current concept for the employment of the airmobile division against insurgent forces in an underdeveloped country. Concept analysis will be in terms of the capabilities and limitations of the airmobile division, the effects of the military geography of Vietnam, and the strengths and weaknesses of the enemy. Primary attention will be devoted to employment of maneuver and combat support units organized into airmobile task forces of company, battalion, and brigade size. Combat service support implications will be considered only to the extent necessary to determine whether the concept is valid. The result of this effort will be a modified concept for employment of the airmobile division in Vietnam under the conditions prevailing in the 1965-66 time frame.

The Background

The airmobile division, with its capability to maneuver infantry battalions and artillery batteries about the battlefield at greatly increased speeds, represents a

quantum improvement in tactical mobility. Although improved mobility would tend to increase the tempo of offensive operations, the tempo is restrained by the difficulty in locating guerrilla forces operating in an underdeveloped area. The inter-dependence of mobility and timely, accurate intelligence is the key to understanding airmobile warfare and the employment of airmobile forces. A balance between mobility and intelligence has been explored, especially since activation of the 11th Air Assault Division in February 1963, but to date it is neither well defined nor generally understood.

Today the United States is actively supporting the government of the Republic of Vietnam in opposing communist subversive insurgency from the north. American forces are committed against insurgent forces. Although the enemy is favored by rugged terrain and proximity to outside support, airmobility, coupled with superior firepower, appears to be an equalizer that will enable friendly forces to envelop terrain obstacles, interdict outside support, and close with and destroy erstwhile elusive guerrilla forces. But history is replete with examples of an "obviously inferior" guerrilla force employing superior tactics to overwhelm and destroy a larger, better equipped force. One such recent example occurred just twelve years ago in French Indo-China.

In that war Ho Chi Minh admonished the Viet Minh to "remember . . . this war [is not being fought] as per French Army regulations."² The airmobile division, committed today in that same area against a similar enemy, is determined to prevail--is determined that history in this case shall not be repeated.

Current Concept

The current concept for employment of the airmobile division in offensive operations against insurgent forces is not well defined. Available material states that current Army field manuals are "generally applicable" and outlines modifications, presumably tailored to the characteristics of the airmobile division. The concept of operations calls for occupation of a large area, employment of a separate base of operations for each brigade, battalion, company, and platoon, and employment of reserves in the dual roles of securing bases of operations and serving as reaction forces. In locating the enemy, heavy reliance is placed on aerial reconnaissance and surveillance, with ground reconnaissance playing a relatively minor role. The enemy is fixed and his freedom of maneuver is denied by means of the firepower and

² Bernard B. Fall, Street Without Joy (4th ed.; London: Pall Mall Press, 1965), p. 381.

mobility of aerial weapons systems. He is destroyed by infantry units that are landed with surprise in close proximity for follow-up assault on foot. While these tactics would appear at first glance to overwhelm and rapidly destroy the guerrilla, closer analysis reveals contradictions between these tactics and characteristics of the airmobile division, the terrain, and the enemy.³

The doctrine of the insurgent describes "mobile warfare," in which the guerrilla is massed in battalion size and larger formations and employs hit and run tactics, as analogous to guerrilla warfare. When the enemy fights thus, it would appear that the division cannot be basically dispersed but must be somewhat massed in order to develop superior combat power at the decisive time and place. When the terrain offers abundant cover and concealment to guerrilla-like forces, aerial surveillance may be inadequate. When the terrain offers cover and concealment, few obstacles, and multiple avenues of egress to guerrilla-like forces, it may be difficult to restrict their maneuver by firepower. When the guerrilla is well trained and well armed, it may be costly to conduct airmobile landings in his proximity.⁴

³This concept is explained further and developed in Chapter V, where specific references are cited.

⁴These characteristics of the area and the enemy are

Approach

In analyzing current concepts for employing the airmobile division and in developing a modified concept, the following general steps will be followed. First, the airmobile division will be analyzed to develop a thorough understanding of its inherent capabilities and limitations. Second, the area of operations, Vietnam, will be studied to gain an appreciation of its effects on the airmobile division. Third, the doctrine, composition and strength, and significant activities of the enemy will be analyzed to determine the strengths and weaknesses of his threat. Fourth, the current concept for employment of the airmobile division will be analyzed to determine its validity and, when appropriate, proposed changes will be developed. Finally, from these analyses a modified concept for employment of the airmobile division against insurgent forces in Vietnam today will be proposed. The thesis ends with a brief discussion of the applicability of the modified concept to environments other than Vietnam. This discussion is made by varying the parameters described below.

explained further and developed in Chapters III and IV, where specific references are cited.

Parameters

This thesis will be developed within the following parameters that describe the threat in Vietnam today.

1. Level of conflict: Phase III Insurgency. "A war of movement between organized forces of the insurgents and those of the established authority."⁵

2. Nature of enemy: Insurgent paramilitary forces resembling regular armed forces in organization, equipment, training, or mission;⁶ and army units of a neighboring aggressive power, in this case the Peoples Army of Vietnam of the Democratic Republic of Vietnam.

3. Area of operations: Underdeveloped, with difficult terrain, limited transportation, and an agrarian village society.

4. Type of operation: Offensive military operations to "locate and destroy" insurgent forces in a prescribed area.

5. Time frame: 1965-66.

6. Special weapons: Neither side is employing

⁵U.S., Department of the Army, U.S. Army Counterinsurgency Forces, FM 31-22 (Washington: U.S. Government Printing Office, 12 November 1963), p. 8.

⁶U.S., Department of the Army, Dictionary of United States Army Terms, AR 320-5 (with Changes No. 2, 21 February 1966; Washington: U.S. Government Printing Office, 23 April 1965), p. 290. The term "insurgent force" is used in the

nuclear weapons; or, chemical or biological agents.

7. Enemy anti-aircraft capability: Limited to small arms and automatic weapons fire.

8. Enemy electronic warfare capability: Limited to monitoring friendly radio nets, with negligible jamming and bogus messages.

9. Secure base of operations: The division is required to secure its own logistics base of operations.

10. Civil affairs and civic action support: Non-organic support is provided the division when significant responsibilities are incurred. The division is employed to destroy the combat power of the insurgent so that concurrent and subsequent operations can be undertaken to alleviate the causes of the insurgency.

11. Airborne operations: The division airborne capability is not employed.

As the reader begins his journey through the following pages, he is asked to keep in mind the philosophy quoted

absence of one overall term covering both indigenous (Viet Cong) and invading (PAVN) forces that pursue subversive insurgency. PAVN units do not meet the strict definition of an insurgent paramilitary force because they are regular army, but they do resemble insurgent paramilitary forces in tactics, limited fire support, lack of air support, and meager line of communications. This usage permits discussing combat operational aspects of Phase III Insurgency without involvement in political considerations of covert invasion or international law.

below:

If you know the enemy and know yourself,
you need not fear the result
of a hundred battles.

If you know yourself, but not the enemy,
for every victory gained
you will also suffer a defeat.

If you know neither the enemy nor yourself,
you will succumb in every battle.

⁷Sun Tzu Wu, The Art of War, trans. Lionel Giles
with an introduction and notes by Brigadier General Thomas
R. Phillips, U.S. Army (Military Classics; Harrisburg, Pa.:
The Military Service Publishing Co., 1944), p. 51.

CHAPTER II

THE AIRMOBILE DIVISION

The increased tempo of air assault operations permits the commander to achieve a degree of surprise, flexibility, maneuver, and speed never possible before in ground combat.¹

--Major General Harry W. O. Kinnard
Commanding General,
11th Air Assault Division
Commanding General,
1st Cavalry Division (Airmobile)

Analysis of the current concept for employment of the airmobile division is impossible without a thorough understanding of the division and its inherent capabilities and limitations. An understanding of these capabilities and limitations requires a close look at how the division is put together and what it can and cannot do. This basic understanding will be expanded in later chapters by discussing the effects of an underdeveloped area and the characteristics of an insurgent force on the operations of the airmobile division.

First, the airmobile division is presented in

¹The 11th Air Assault Division, Air Assault in Action (Fort Benning, Ga.: The 11th Air Assault Division, 27 January 1965), p. 2.

general terms. Then, the "fighting" elements, which constitute airmobile task forces, are examined in detail. A brief discussion of combat service support units is included to complete the picture. Finally, the capabilities and limitations of the division are discussed in detail.

The Division

The airmobile division (see Figure 1) is organized along lines paralleling the ROAD infantry division. Three major differences are that helicopters replace surface vehicles to the maximum extent possible, tanks are omitted, and the 155mm howitzer, the 8in cannon, and the Honest John rocket are deleted in favor of aerial rocket artillery. Lightweight vehicles and weapons are provided throughout the division to enhance helicopter transportability. The 434 aircraft in the division, compared with 103 in the ROAD infantry division, permit a reduction in surface vehicles to 1,500, compared with 3,400 in the infantry division.² These aircraft, and the units tailored to use them, enable the division to maneuver infantry battalions, cavalry troops, and artillery batteries by air and to sustain itself modestly with its organic aerial fire support and resupply.

²U.S. Army Combat Developments Command, Airmobile Division, TOE 67T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), pp. 37 & 45.

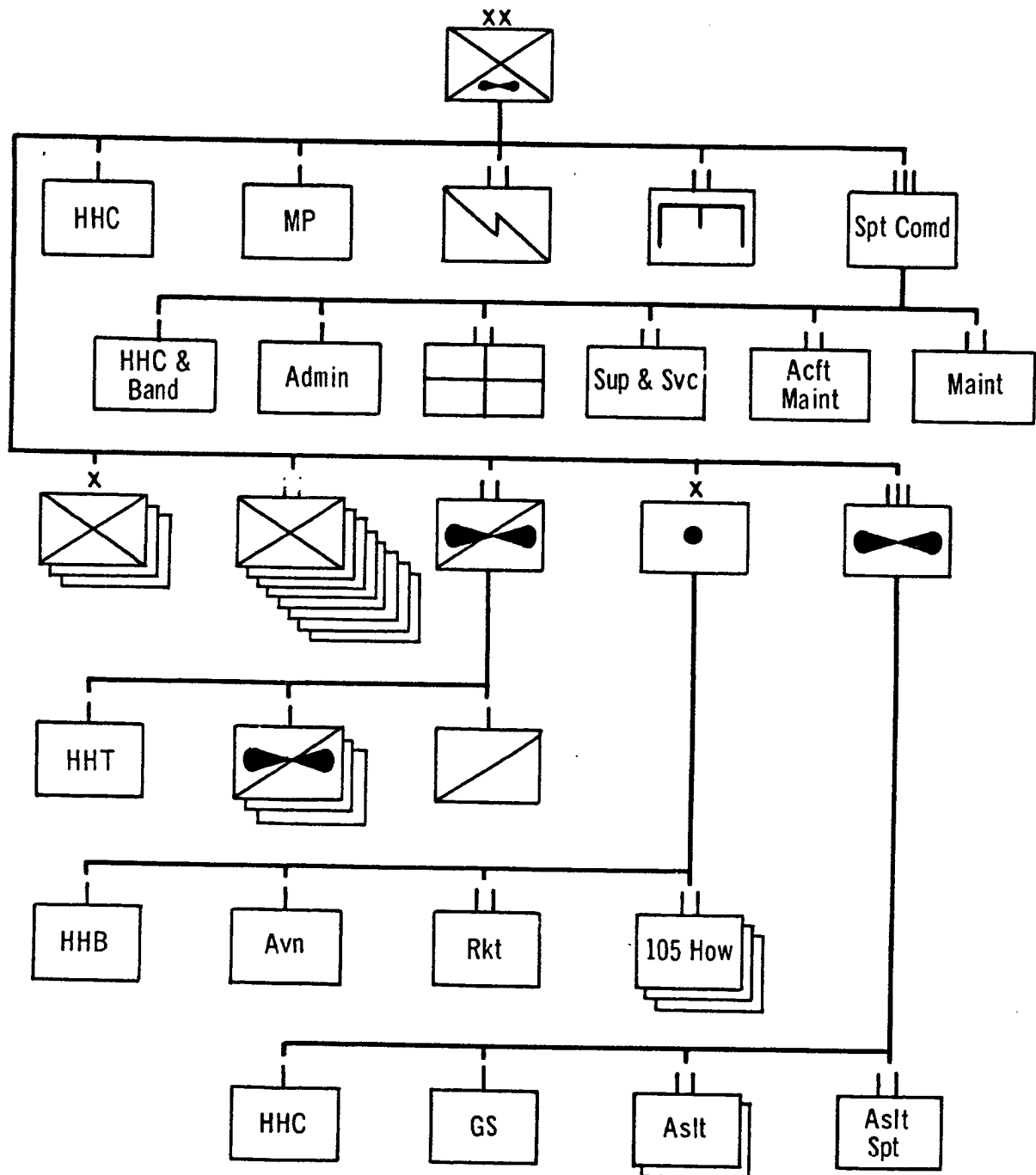


Fig. 1.--Airmobile Division

Source: U.S. Army Combat Developments Command, Airmobile Division, TOE 67T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 2. One brigade of three infantry battalions, one 105mm artillery battalion, and the division engineer battalion are airborne.

The airmobile division has the traditional cavalry mission of providing reconnaissance and security for larger units. Additionally, to face the modern threat of subversive insurgency, it has the missions of participating in counterinsurgency and conventional war operations and of controlling an area, including its population and its resources.³ Further discussion of the division characteristics is focused on offensive aspects of the counterinsurgency mission.

Superior mobility, firepower, and flexibility favor the division in offensive operations against insurgent forces. Being largely free of the effects of surface obstacles, such as jungles, swamps, and rugged mountains, it is suited for counterinsurgency operations in underdeveloped areas, where terrain has historically favored the insurgent. The division can respond immediately to new opportunities or threats by moving two infantry battalions with combat support simultaneously, at a speed of eighty knots, to initiate or influence a battle. By recovering a force by air from one battle scene and committing it non-stop into a new engagement, the division can recycle combat forces for

³Ibid., p. 1. The mission statement includes the terms "stability, low and mid-intensity operations" which are superseded for Army use.

immediate use in other areas.

On balance, the airmobile division has certain limitations that affect its employment. The tempo and scope of operations depend on perfect teamwork at all levels--from a rifle squad loading a single aircraft to a brigade executing a supported airmobile assault. Knowledgeable leadership and the highest state of unit training are required. The division is exceedingly dependent upon accurate and timely intelligence of the enemy to realize the full potential of its mobility. Although severe weather affects airmobile operations, large scale airmobile operations have been conducted with a ceiling of 300 feet and a half mile visibility. Airmobile operations require local air superiority and suppression of enemy ground-to-air fires. As in the airborne division, a reduced surface fire support capability causes greater dependence on close air support. The division is sustained by an air line of communications which places demands on the division aircraft for resupply and evacuation.⁴ Reliance on an air line of communications

⁴U.S. Army Test, Evaluation and Control Group, Project TEAM [Test, Evaluation Air Mobility], Field Test Program: Army Air Mobility Concept, Vol. I: Basic Report (Fort Benning, Ga.: U.S. Army Combat Developments Command, 15 January 1965), pp. 7-8 & 27; U.S. Army Combat Developments Command, The Division (Air Assault Division Supplement), ST 61-100-1 (Fort Belvoir, Va.: Combat Developments Command, 25 June 1964), p. 1-4; and U.S. Army Combat

has a serious impact on combat operations.

As in the ROAD division, the airmobile division fights by assigning missions and allocating resources to its brigades. Airmobile forces are tailored for specific missions by providing the airmobile force commander with the necessary maneuver and combat support forces in an attached, operational control, or direct support status. Command of an airmobile force is normally vested in the senior infantry commander, with aviation representatives providing advice and assistance in planning. Command and control are characterized by the maximum possible decentralization of authority at all levels, with mission-type orders normally used for semi-independent operations.⁵

Developments Command, Aviation Group, Airmobile Division, TOE 1-100T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 2. In concept, supplies are delivered to the brigade bases by CV-2, then distributed to committed forces by UH-1D and CH-47 when not supporting combat operations. No helicopters are provided the division solely for support of the ALOC. When fixed wing landing zones are not available, or weather slows fixed wing operations, division helicopters must be diverted to resupply and evacuation missions.

⁵The 11th Air Assault Division, Tactical Standing Operating Procedure (Fort Benning, Ga.: The 11th Air Assault Division, 28 August 1964), p. 0-1. Although decentralized execution is the rule between division and battalion level, the vulnerability of company size footmobile forces to defeat in detail, and their reliance on battalion for airlift, aerial fire support, and aerial resupply, dictate close control and coordination at battalion level.

The remainder of this chapter is devoted to an analysis of the fighting elements of the division and their contribution to its combat power, leading to an analysis of the division's capabilities and limitations.

Brigades

The three brigade headquarters in the airmobile division are similar to those of the ROAD infantry division, but with the following exceptions. The airmobile division brigade has a security platoon (rifle platoon) that is required because the fluid nature of airmobile operations frequently causes the command post to be exposed. The aviation platoon is larger, having 13 helicopters which provide the primary transportation means of command, liaison, and observation for the headquarters and attached battalions. Ground vehicles are reduced to the minimum required for radio platforms, liaison, and transporting command post equipment. All vehicular radios are jeep-mounted. Additionally, the provision of man-packed UHF and AM-SSB radio sets and a larger radio section reflects the increased dependence on radio communications.⁶

⁶U.S. Army Combat Developments Command, Headquarters and Headquarters Company, Infantry Brigade, Airmobile Division, TOE 67-42T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), pp. 2-4.

As in the ROAD infantry division, the airmobile division brigade commands and controls attached units and is prepared to accept and release attachments on short notice.⁷ A typical brigade size airmobile task force is shown in Figure 2 and its attached units are discussed in more detail later.

The brigade normally controls two or three infantry battalions. It fights by forming an airmobile task force built around each infantry battalion. The battalion task forces are assigned missions that contribute to accomplishment of the overall brigade mission.⁸

An air cavalry troop is normally attached to each committed brigade to provide aerial and ground reconnaissance and security between maneuver elements.⁹

⁷ Ibid., p. 3.

⁸ Combat Developments Command, The Division, pp. 3-1 through 3-4. The airmobile division brigade controls "less than five" infantry battalions.

⁹ U.S. Army Combat Developments Command, Air Assault Division Brigade, ST 7-30-1 (Fort Benning, Ga.: Combat Developments Command, 10 September 1964), p. 7. It should be noted that the reconnaissance platoon of the infantry battalion has a ground reconnaissance capability. However, other demands placed on assault helicopters frequently preclude their being piecemealed to support the reconnaissance platoons of the various infantry battalions. Additionally, demands for liaison and reconnaissance by commanders frequently preclude the aviation platoon of the brigade supporting the reconnaissance platoons for aerial reconnaissance. In essence, due to the lack of comparable mobility,

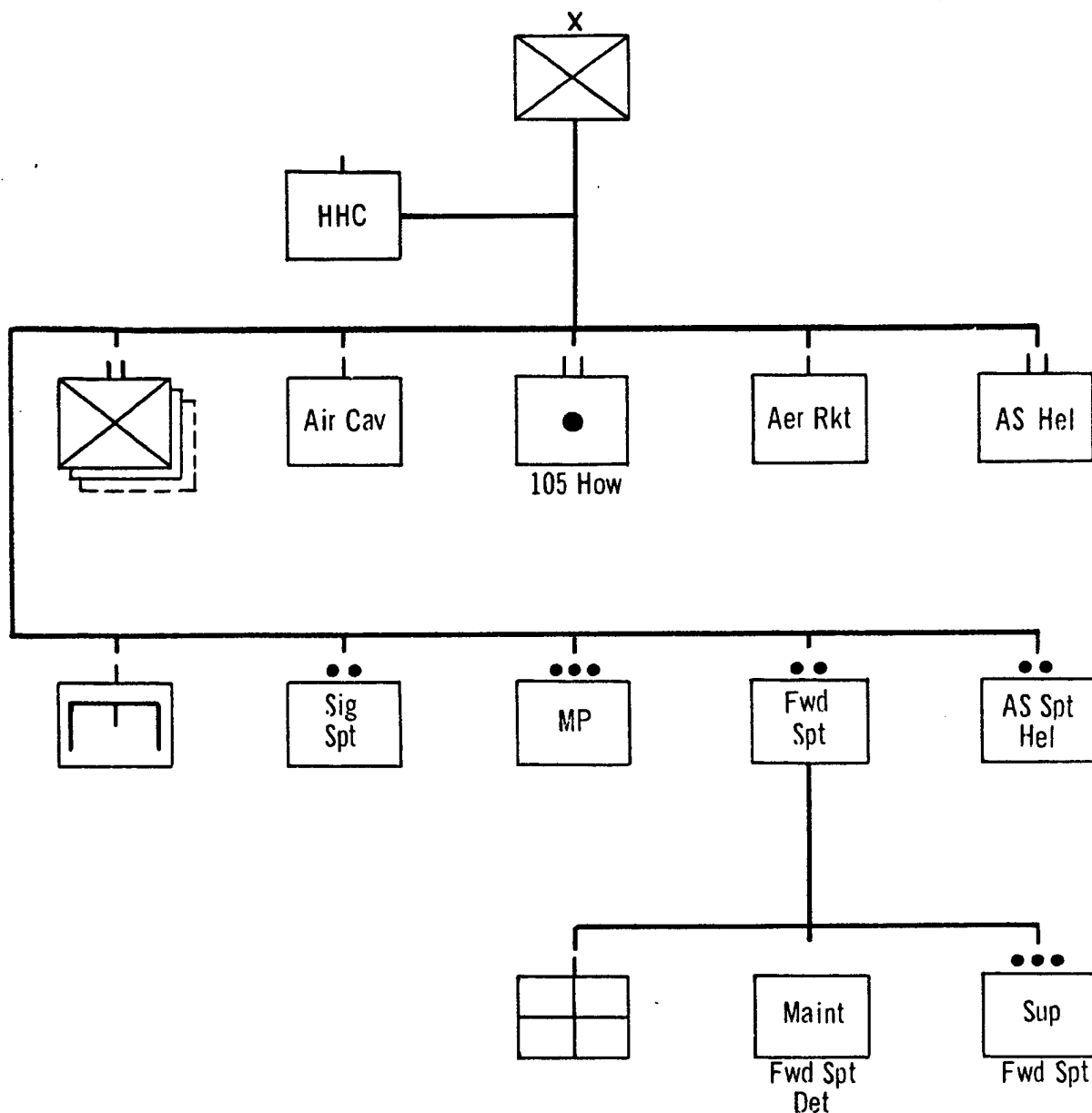


Fig. 2.--Brigade Task Organization

Sources: U.S. Army Combat Developments Command, Air Assault Division Brigade, ST 7-30-1 (Fort Benning, Ga.: Combat Developments Command, 10 September 1964), p. 42; and U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Command Operations Company, Signal Battalion, Airmobile Division, TOE 11-207T; Forward Support Detachment, Maintenance Battalion, Support Command, Airmobile Division, TOE 29-87T; Headquarters and Headquarters Company and Band, Support Command, Airmobile Division, TOE 29-42T; and Supply Company, Supply Battalion, Support Command, Airmobile Division, TOE 29-97T.

A 105mm howitzer battalion is normally placed in direct support of each committed brigade, although it may be attached when the brigade operates beyond division artillery control.¹⁰ Because the battalion does not have prime movers, provisions must be made to displace the howitzers by helicopters allocated to the brigade or to division artillery.

An aerial artillery battery normally reinforces the fires of the direct support artillery battalion. When the normal direct support artillery is unable to provide the required support, an aerial artillery battery may be placed in direct support of, or attached to, the brigade.¹¹

An assault helicopter battalion provides tactical air mobility to the maneuver elements of the brigade. Due to the criticality of airlift within the division, assault helicopters are placed under the operational control of, or attached to, brigades on a mission basis. The assault helicopter support furnished a brigade will vary from one assault helicopter company to both assault helicopter

the reconnaissance platoon is not able to support its battalion properly. This causes heavy reliance by the brigade and its attached battalions on the intelligence and security provided by the air cavalry troop.

¹⁰Combat Developments Command, The Division, p. 3-2.

¹¹Combat Developments Command, The Division, p. 3-2.

A 105mm howitzer battalion is normally placed in direct support of each committed brigade, although it may be attached when the brigade operates beyond division artillery control.¹⁰ Because the battalion does not have prime movers, provisions must be made to displace the howitzers by helicopters allocated to the brigade or to division artillery.

An aerial artillery battery normally reinforces the fires of the direct support artillery battalion. When the normal direct support artillery is unable to provide the required support, an aerial artillery battery may be placed in direct support of, or attached to, the brigade.¹¹

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¹⁰Combat Developments Command, The Division, p. 3-2.

¹¹Combat Developments Command, The Division, p. 3-2.

battalions of the division.

A section of the assault support helicopter company may be employed in troop movement, but it is used primarily for displacement of howitzers, communication vehicles, and movement of supplies. Extensive division requirements for the CH-47 helicopter to move heavier tactical loads and supplies result in their allocation to the brigade only on a restricted mission basis.

A combat engineer company is normally placed in direct support of the brigade. For independent missions the company may be attached.¹² Primarily employed in the development of landing zones and construction of barriers, the company is dependent upon the allocation of assault and assault support helicopters to attain mobility comparable to supported infantry and for movement of engineer supplies.

As in the ROAD infantry division, the brigade receives support from numerous units and agencies which include signal, military police, medical, maintenance, supply, interrogation prisoner of war, Army Security Agency, and Air Force tactical air control parties. One difference is that supporting equipment is helicopter transportable. The main difference, however, is the use of a forward

¹²Combat Developments Command, Division Brigade, p. 8.

service support control section to coordinate combat service support for the brigade.¹³

In summary, the brigade is formed into an airmobile task force by the allocation of maneuver, combat support, and combat service support units. These attachments vary with each change of mission. There may be sufficient helicopters allocated to lift simultaneously the assault elements of a two-battalion brigade, or there may be only enough to lift a small reserve and to provide limited resupply. As an airmobile task force with the self-contained ability to search, shoot, move, and communicate, the brigade is suited to offensive operations against insurgent forces in an underdeveloped area. On the other hand, the brigade is sensitive to accurate and timely intelligence to apply its mobility advantage effectively and to protect relatively vulnerable helicopters and dismounted troops from ambush. Additionally, the tempo of operations may be restricted by aircraft availability due to the demands of other tactical operations or resupply tasks elsewhere in the division.

Infantry Battalions

The basic maneuver elements of the airmobile division are the eight infantry battalions. The mission of the

¹³U.S. Army Combat Developments Command, Headquar-

infantry battalion is identical to its ROAD infantry division counterpart: "To close with the enemy by means of fire and maneuver in order to destroy or capture him or to repel his assault by fire, close combat and counterattack."¹⁴

The maneuver elements of the infantry battalion are its three rifle companies, each organized with three rifle platoons and a mortar platoon (see Figure 3). All weapons and equipment are man-portable, which enables the companies to exploit foot mobility in all types of terrain and weather. Although the companies have organic mortars, they depend heavily on artillery and aerial fire support, especially during the initial phase of an airmobile operation. Although the companies are specially organized and trained for air movement they dismount to fight, employing fire and maneuver to destroy or capture the enemy. The companies are dependent on battalion for accurate and timely intelligence, helicopter support, artillery and aerial fire support, and all combat service support, especially Class I and Class V supplies and medical evacuation.

ters and Headquarters Company and Band, Support Command, Airmobile Division, TOE 29-42T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 2.

¹⁴U.S. Army Combat Developments Command, Infantry Battalion, Airmobile Division, TOE 7-55T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

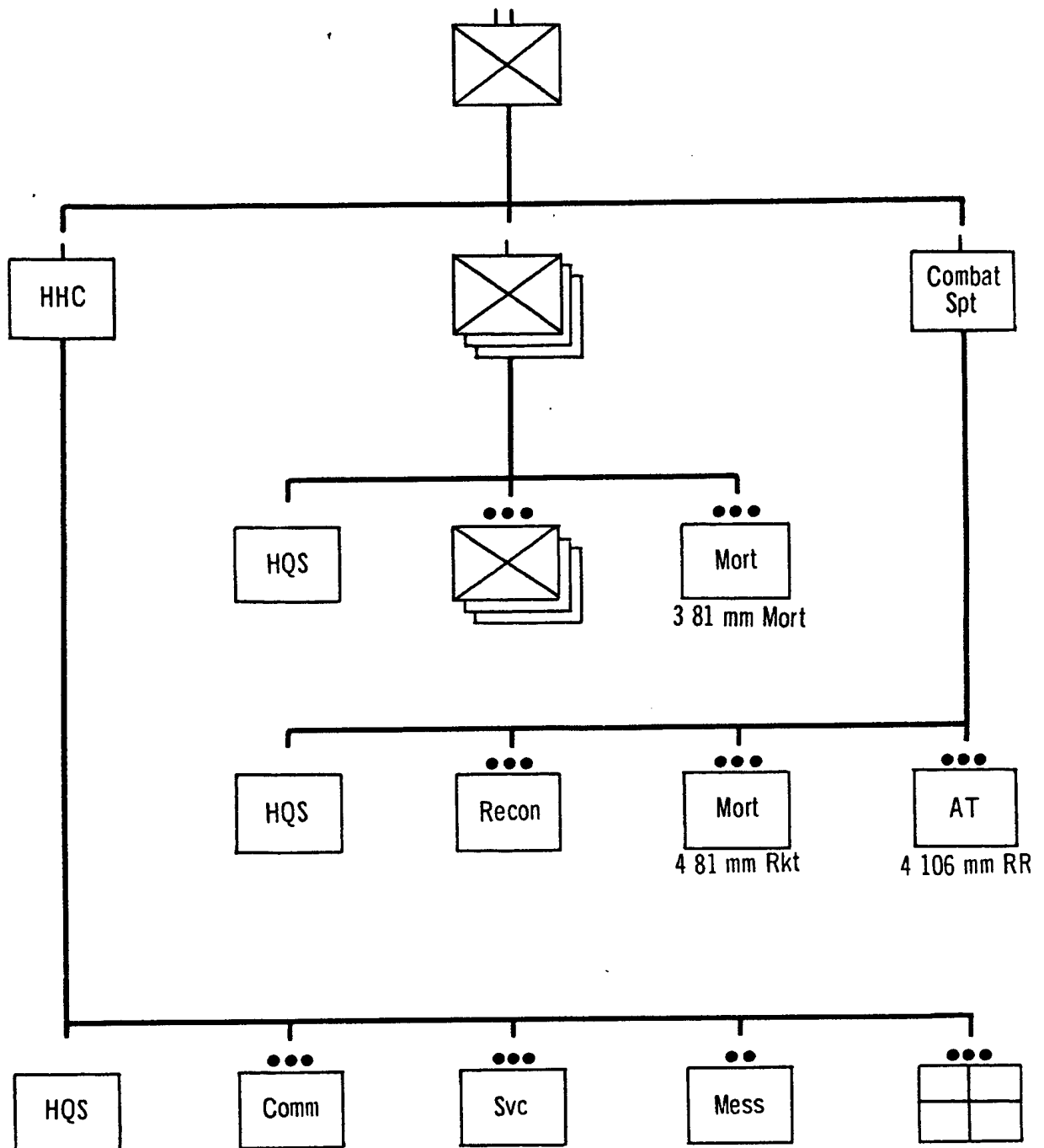


Fig. 3--Infantry Battalion

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Infantry Battalion, Airmobile Division, TOE 7-55T; Rifle Company, Infantry Battalion, Airmobile Division, TOE 7-57T; Combat Support Company, Infantry Battalion, Airmobile Division, TOE 7-58T; and Headquarters and Headquarters Company, Infantry Battalion, Airmobile Division, TOE 7-65.

The battalion reconnaissance, mortar, and anti-tank platoons are in the combat support company. The reconnaissance platoon performs intelligence and security missions and, when aircraft are allotted, is capable of combined aerial and ground reconnaissance.¹⁵ The mortar platoon is equipped with four 81mm mortars and is normally employed in general support when the rifle companies are in supporting range. It may be attached to one company when distances between companies preclude general support. The anti-tank platoon is equipped with four 106mm recoilless rifles and is air transportable in assault support aircraft. But due to the criticality of airlift, the anti-tank platoon receives a low priority in airmobile operations unless there is a tank threat or a special need for its weapons.

The battalion may have an artillery battery attached, but more frequently it receives artillery support from the direct support artillery of the brigade.¹⁶

Aviation support varies constantly, depending on the

¹⁵Project TEAM, I, 13. As previously discussed, aircraft are seldom available to the reconnaissance platoon, restricting its capability to support the battalion. Battalion must capitalize on spot reports from the air cavalry troop, monitored on the brigade operations intelligence net.

¹⁶U.S. Army Combat Developments Command, Infantry Battalion, Air Assault Division, ST 7-20-1 (Fort Benning, Ga.: Combat Developments Command, 11 September 1964), p. 48.

battalion mission and the situation from minute to minute. For a battalion operation, an assault helicopter battalion and an assault support helicopter company may be employed in positioning fire support means and conducting the initial assault. Then these aircraft may go on to other missions, leaving only one assault helicopter platoon to support the maneuver of the battalion and resupply operations. As requirements arise and aircraft are available, aviation support is allotted from that apportioned to the brigade.

An engineer platoon may be in direct support of, or attached to, the infantry battalion. If so, it assists in the improvement of landing zones and construction of barriers.

In summary, the infantry battalion, reinforced to form an airmobile task force, is the basic maneuver element of the division. By virtue of its foot and air mobility it is well suited for operations against insurgent forces in an underdeveloped area. The battalion is dependent on higher echelons for accurate and timely intelligence, helicopter support, artillery and aerial fire support, and combat service support.

Cavalry Squadron

Reconnaissance and security are provided the

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Cavalry Squadron

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division by its cavalry squadron of three air cavalry troops and one armored cavalry troop (see Figure 4). Each air cavalry troop has a scout platoon with armed helicopters, a rifle platoon with organic lift helicopters, and a weapons platoon with helicopters armed with both machine guns and 2.75in rockets. Its primary role is air and ground reconnaissance, but it is capable of limited combat operations.¹⁷

The armored cavalry troop, with three cavalry platoons, each with a scout section, anti-tank section, rifle squad, and mortar squad, resembles its counterpart in the airborne division. Although the troop is vehicle-mounted, it is air transportable in a mix of assault and assault support aircraft. It provides ground reconnaissance and security and is capable of limited combat operations.¹⁸

The mission of the cavalry squadron is "to perform reconnaissance and to provide security for the division or its major subordinate combat elements; to engage in combat as an economy-of-force unit; and to provide limited air and

¹⁷U.S. Army Combat Developments Command, Air Cavalry Troop, Cavalry Squadron, Airmobile Division, TOE 17-98T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

¹⁸U.S. Army Combat Developments Command, Cavalry Troop, Cavalry Squadron, Airmobile Division, TOE 17-99T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

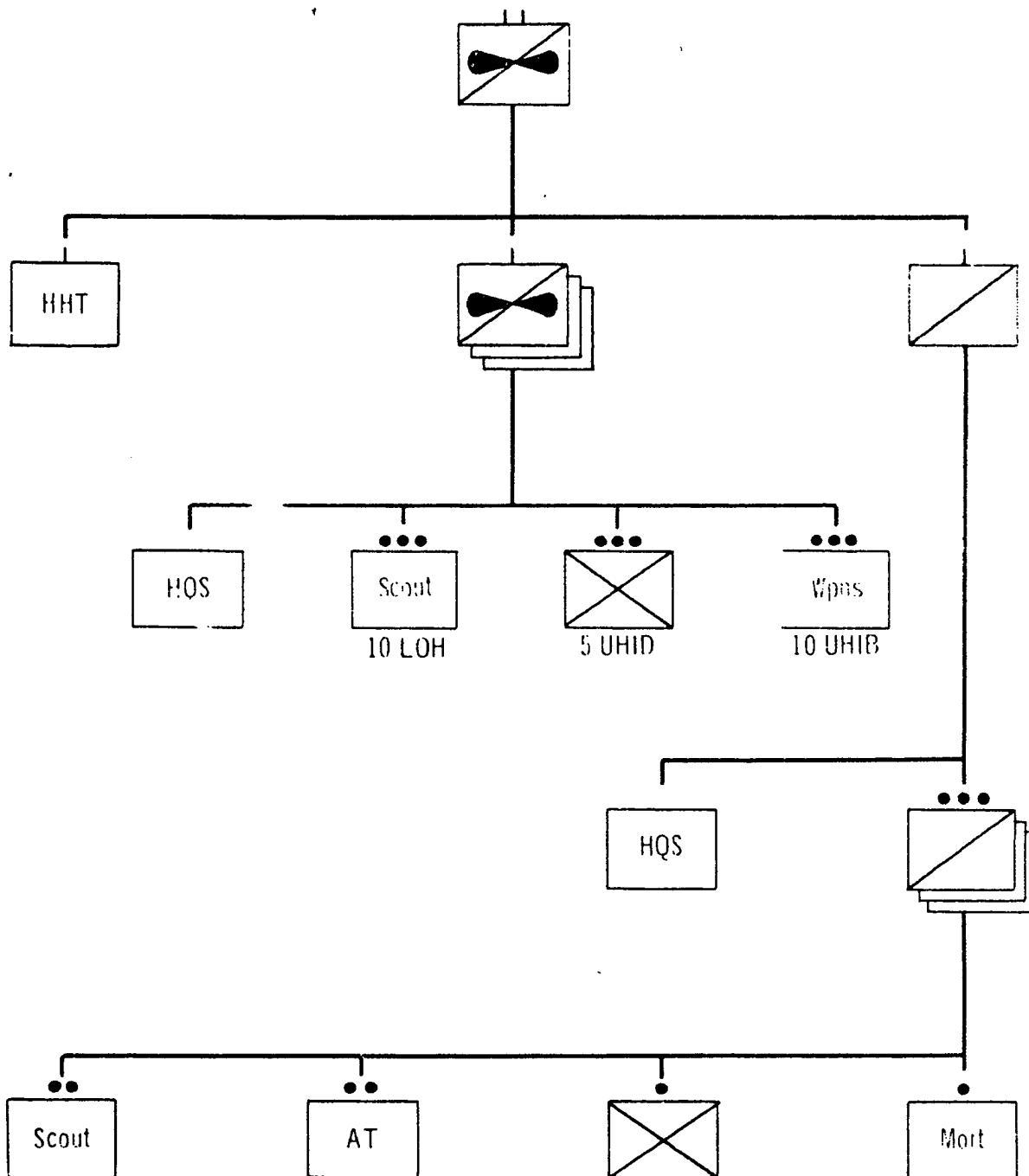


Fig. 4.--Cavalry Squadron

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Air Cavalry Troop, Cavalry Squadron, Airmobile Division, TOE 17-98T; Cavalry Squadron, Airmobile Division, TOE 17-95f; Cavalry Troop, Cavalry Squadron, Airmobile Division, TOE 17-99T; and Headquarters and Headquarters Troop, Cavalry Squadron, Airmobile Division, TOE 17-96T.

ground anti-tank defense for the division."¹⁹ The squadron is well suited to its mission, having the organic means of conducting air and ground reconnaissance. Operationally it is a self-sustaining, tailored, combat force able to function as a unit or to provide tailored forces to support brigade operations.

One air cavalry troop is normally attached to each committed brigade, with the squadron minus being employed under division control.²⁰ Each air cavalry troop with a committed brigade affords air and ground reconnaissance and security and maintains contact between attached battalions or with other brigades. The squadron minus performs similar tasks for the division. Additionally, the armored cavalry troop, under squadron control, is employed near the division base, where it provides local and rear area security and constitutes a small reserve force.²¹

Although suited to the support of offensive

¹⁹U.S. Army Combat Developments Command, Cavalry Squadron, Airmobile Division, TOE 17-95T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

²⁰Combat Developments Command, The Division, p. 3-2.

²¹U.S., Department of the Army, Armored Cavalry Platoon and Troop Air Cavalry Troop and Divisional Armored Cavalry Squadron, FM 17-36 (with Changes No. 1, 6 May 1963; Washington: U.S. Government Printing Office, 21 December 1961), p. 8.

operations against insurgent forces, the effectiveness of the squadron may be reduced in dense vegetation that limits aerial observation. Also, its operating range is anchored to a base of operations to which it must return periodically to refuel and rearm.

Division Artillery

With an aviation battery, three 105mm howitzer field artillery battalions, and an aerial artillery field artillery battalion, the airmobile division artillery (see Figure 5) provides "direct and general artillery support for the airmobile division."²²

The basic fire support element of the airmobile division is the 105mm howitzer battalion, which has three firing batteries of six 105mm howitzers each. Firing batteries are air transportable in assault support aircraft and, since there are no prime movers for the howitzers, they are solely dependent on aircraft for displacement. As the division formation of airmobile task forces may require, the battalion is employed in either direct or general support, reinforces the fires of another battalion, or is attached.

The aerial artillery battalion is organized with

²²U.S. Army Combat Developments Command, Airmobile Division Artillery, TOE 6-700T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

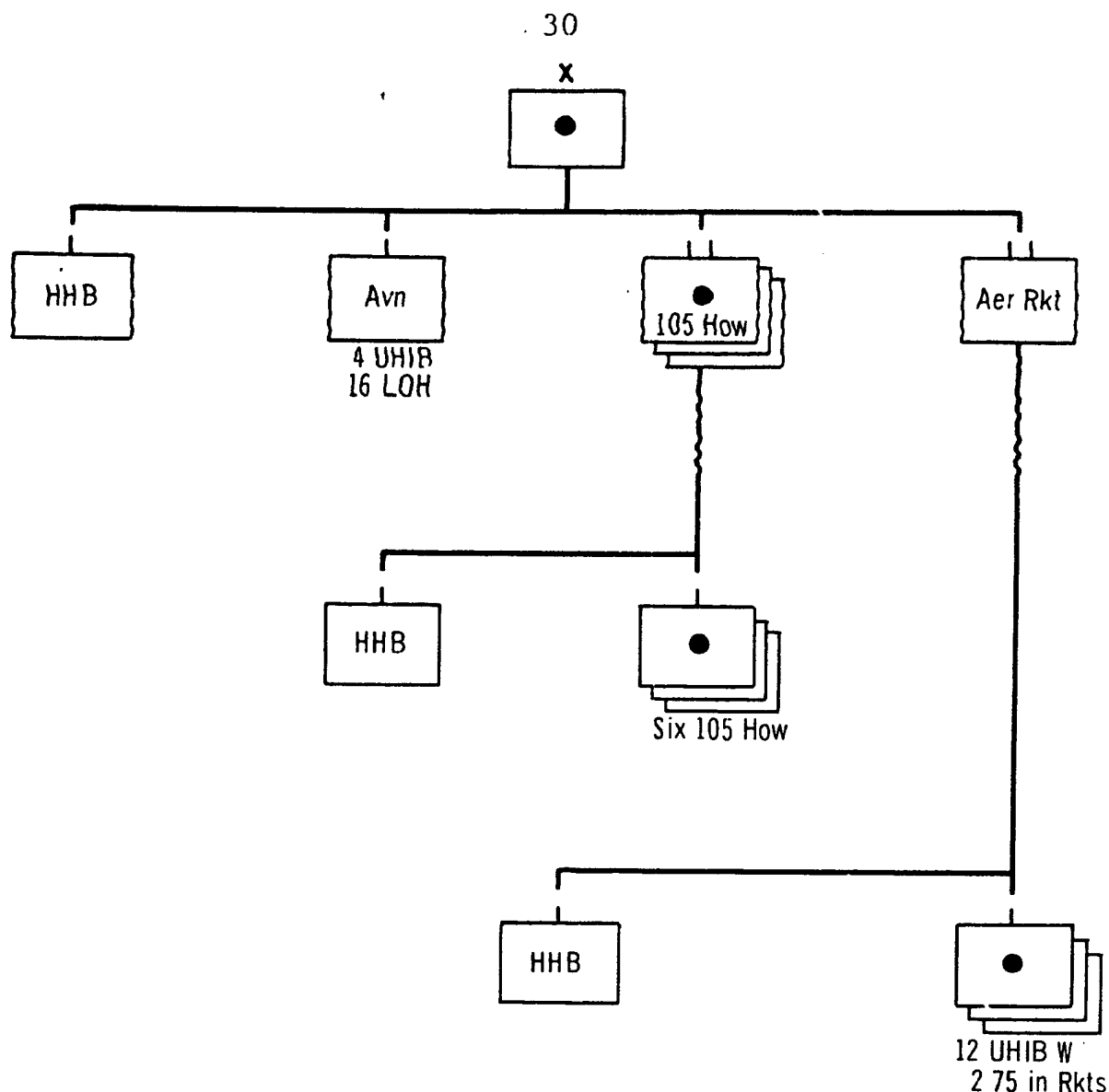


Fig. 5.--Airmobile Division Artillery

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Aerial Artillery Battery, Field Artillery Battalion, Aerial Artillery, Division Artillery, Airmobile Division, TOE 6-727T; Airmobile Division Artillery, TOE 6-700T; Aviation Battery, Division Artillery, Airmobile Division, TOE 6-702T; Field Artillery Battalion, Aerial Artillery, Division Artillery, Airmobile Division, TOE 6-725T; Field Artillery Howitzer Battalion, 105mm Towed, Division Artillery, Airmobile Division, TOE 6-705T; Field Artillery Howitzer Battery 105mm Towed, Division Artillery, Airmobile Division, TOE 6-707T; and Headquarters, Headquarters and Service Battery, Field Artillery Battalion, Aerial Artillery, Division Artillery, Airmobile Division, TOE 6-726T.

three firing batteries, each of which has twelve helicopters armed with 2.75in rockets. The batteries are employed on normal artillery tactical missions or are attached as required.²³ Aerial artillery batteries may be the only artillery available during the initial phase of an airmobile operation when terrain, aircraft availability, or considerations of surprise preclude the prepositioning or early employment of surface artillery. With mobility comparable to supported forces, aerial artillery is well suited to the support of offensive airmobile operations in underdeveloped areas. Unlike indirect artillery, however, it is vulnerable to air defense fires and its operations are restricted during periods of reduced visibility. Its range and endurance are limited by the requirement to return frequently to a secure base to refuel and rearm.

Being air transportable, the airmobile division artillery is capable of providing close and continuous indirect and direct fires in support of air and foot mobile maneuver elements operating in an underdeveloped area. At the same time it is dependent upon an allocation of aircraft for initial emplacement and subsequent displacement of

²³U.S. Army Combat Developments Command, Field Artillery Battalion, Aerial Artillery, Division Artillery, Airmobile Division, TOE 6-725T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

firing elements and for combat service support, especially replenishment of Class V supplies.

Aviation Group

The aviation group (see Figure 6) provides aviation support to the division with a general support company, two assault helicopter battalions, and an assault support helicopter battalion.

A headquarters company includes the division pathfinder platoon and five ground control approach teams. Pathfinder detachments provide enroute and terminal guidance and establish and operate landing zones in support of airmobile operations.²⁴ They are normally attached to assault and assault support helicopter units on a mission basis. The ground control approach teams establish and operate instrumented airfields in the division base and in each brigade base.²⁵

The general support company includes a surveillance platoon, a support platoon, and a utility platoon. Visual, radar, and infrared surveillance, aerial photography, and battlefield illumination are provided by the surveillance

²⁴U.S. Army Combat Developments Command, Aviation Group, Air Assault Division, ST 1-18-1 (Fort Rucker, Ala.: Combat Developments Command, 1 September 1964), p. 23.

²⁵Ibid.

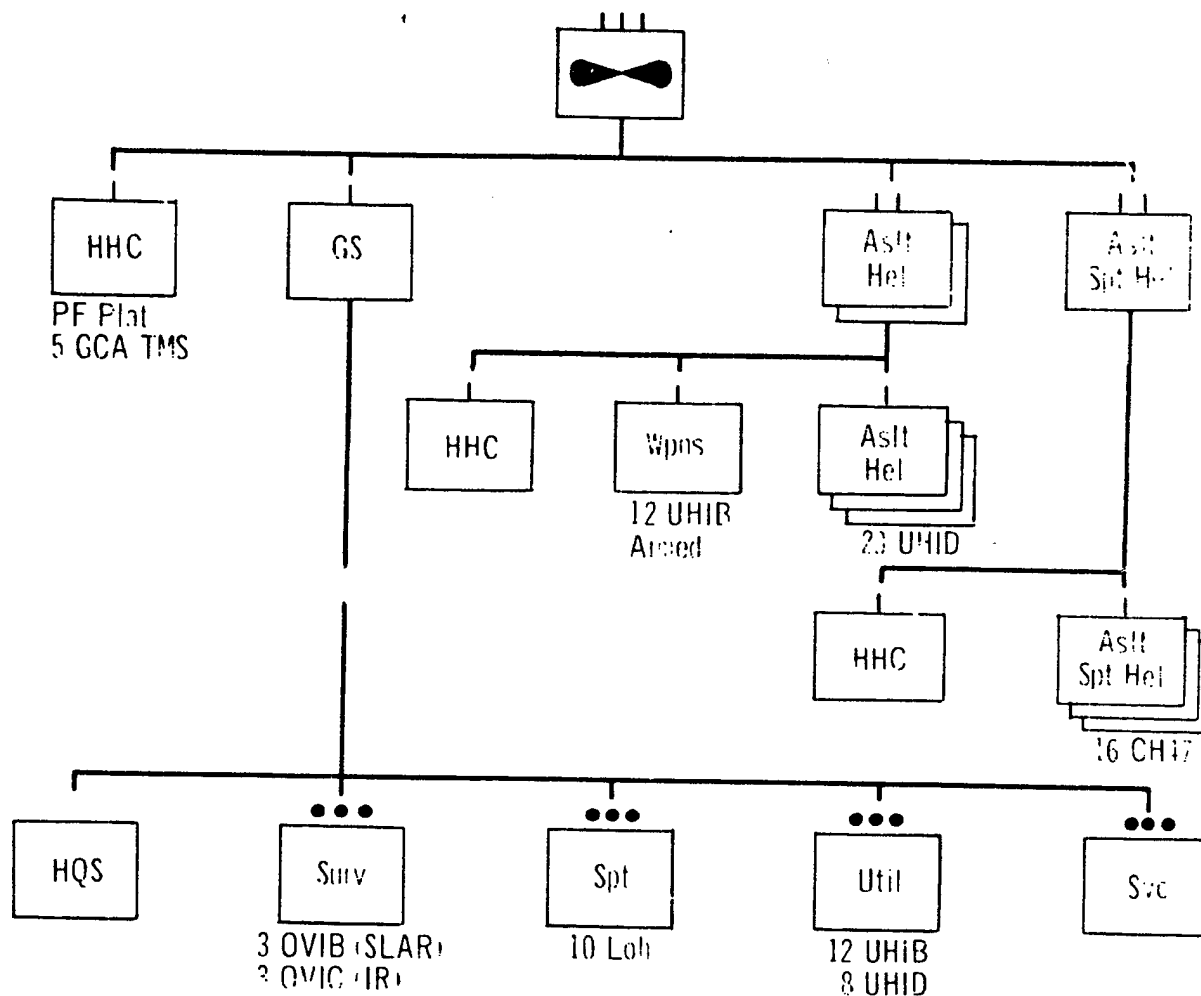


Fig. 6.--Aviation Group

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Aerial Weapons Company, Assault Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-157T; Assault Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-155T; Assault Helicopter Company, Assault Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-158T; Assault Support Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-165T; Assault Support Helicopter Company, Assault Support Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-167T; Aviation Group, Airmobile Division, TOE 1-100T; General Support Company, Aviation Group, Airmobile Division, TOE 1-102T; Headquarters and Headquarters Company, Assault Support Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-166T; and Headquarters and Headquarters Company, Aviation Group, Airmobile Division, TOE 1-101T.

platoon.²⁶ The range and endurance of the platoon is anchored to a fixed wing landing strip suitable for its Mohawk aircraft. Dense vegetation adversely affects visual and electronic surveillance. An insurgent force lacking in motorized equipment may be immune to effective radar and infrared detection.

The workhorse of the airmobile division is the UH-1D helicopter in the two assault helicopter battalions, each of which is organized with three assault helicopter companies and an aerial weapons company. An assault helicopter company provides single lift for the assault elements of one rifle company, and the battalion can lift the assault elements of one infantry battalion.²⁷ Platoons of the aerial weapons company are normally attached to assault helicopter companies to provide aerial escort and suppressive fires in

²⁶ U.S. Army Combat Developments Command, General Support Company, Aviation Group, Airmobile Division, TOE 1-102T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

²⁷ U.S. Army Combat Developments Command, Assault Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-155T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1. These figures are based on normal aircraft availability of 80 per cent, which means 16 aircraft flyable from each company and 48 aircraft flyable from the battalion. Additionally, aircraft are employed in aerial evacuation of wounded from the immediate battle area as required. This role is vital because the division is solely dependent on aerial medical evacuation and has only 8 air ambulances and 4 crash rescue helicopters.

the vicinity of landing zones.²⁸ The battalion operates from forward, dispersed locations and employs packaged fuel delivered via the air line of communications. Reduced effectiveness during darkness, maintenance requirements, and security considerations normally dictate that aviation units return to a secure base at night.

The assault support helicopter battalion provides the means of mobility for howitzers and command posts and replenishment of supplies forward of the brigade base. It has three assault support helicopter companies, each of which can provide single lift for the combat elements of one howitzer battery, the assault elements of two rifle companies, or fifty tons of cargo. The battalion provides single lift for the combat elements of two infantry battalions, or 150 tons of cargo.²⁹ During periods of darkness the effectiveness of the battalion is reduced. Combat or support

²⁸U.S. Army Combat Developments Command, Aerial Weapons Company, Assault Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-157T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

²⁹U.S. Army Combat Developments Command, Assault Support Helicopter Battalion, Aviation Group, Airmobile Division, TOE 1-165T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 2. These figures are based on normal aircraft availability of 60 per cent, which allows 10 aircraft flyable from each company and 30 from the battalion. They also assume that the cube of bulk cargo will permit use of 10,500 lb ACL. Additionally, the battalion augments aeromedical evacuation as required.

operations may dictate the need for missions into secure forward landing zones at night. Night operations are facilitated by pathfinder support. Maintenance requirements and security considerations normally dictate that the battalion elements return to a secure base at night.

Air mobility provided by the aviation group enables the airmobile division to operate in underdeveloped areas. Division aviation provides air mobility to the infantry and artillery battalions and supports the air line of communications between committed forces and the brigade base. To enable sustained operations, aircraft must be secured by infantry elements and permitted to "stand down" for maintenance when operations will permit. Aircraft are vulnerable to air defensive fires, including small arms, and suppressive fires must be provided when operating in unsecured areas. Aviation gives the division a mobility advantage over insurgent forces, thereby upsetting the historic advantage of insurgent forces in difficult terrain.

Engineer Battalion

The engineer battalion (see Figure 7) has three combat engineer companies with which it executes traditional engineer tasks and fights as infantry when required.³⁰

³⁰U.S. Army Combat Developments Command, Engineer

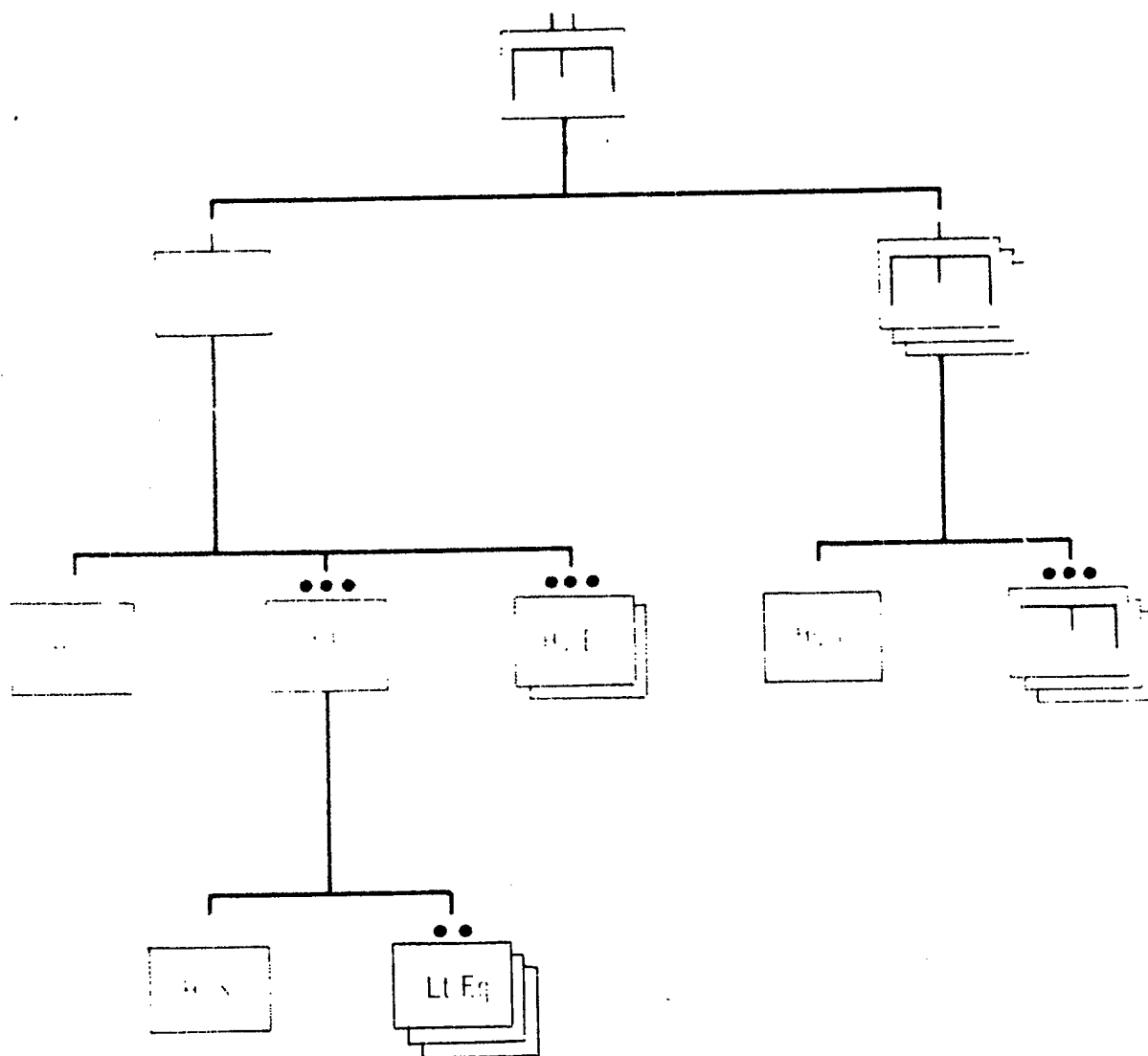


Fig. 7.--Engineer Battalion

Sources: U.S. Army Combat Developments Command TOCs published at Fort Belvoir, Va., 10 July 1965, as follows: Engineer Battalion, Airmobile Division, TOE 5-215F; Headquarters and Headquarters Company, Engineer Battalion, Airmobile Division, TOE 5-216F; and Combat Engineer Company, Engineer Battalion, Airmobile Division, TOE 5-217F.

One light and two heavy equipment platoons, in the headquarters company, support the combat engineer companies with dump trucks, graders, scrapers, and tractors.³¹

There are three platoons of three squads each in a combat engineer company. Each company, equipped with pioneer tools, power tools, and 3/4-ton dump trucks, performs normal combat engineer tasks that include development of barriers, maintenance of routes and bridges, and construction of landing facilities for aircraft.³² Using pioneer tools, power tools, and demolitions, an expedient helicopter landing site can be rapidly constructed. A fixed wing landing zone can be constructed by a combat engineer company with support from the battalion equipment platoons. A combat engineer company is normally placed in support of, or attached to, each committed brigade.

Battalion, Airmobile Division, TOE 5-215T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

³¹Ibid., p. 4. The 2-1/2-ton dump truck and other heavy engineer equipment of the equipment platoons are not transportable in assault support helicopters. This equipment is delivered to the work site overland, by aerial delivery from the Air Force C-130 aircraft, or transported by the CH-54 helicopter, which may be placed in support of the division.

³²U.S. Army Combat Developments Command, Combat Engineer Company, Engineer Battalion, Airmobile Division, TOE 5-217T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

By virtue of its organization and lightweight equipment, the engineer battalion is capable of supporting airmobile operations in underdeveloped areas. Elements of the battalion are dependent upon an allocation of division aircraft for movement of personnel, equipment, and barrier material in support of airmobile operations. Support of engineer tasks can place significant demands on division helicopters. In counterinsurgency operations, engineer tasks should include development of anti-personnel barriers and construction of landing zones, which may have a lower priority in other environments.

Signal Battalion

The signal battalion is organized with a headquarters and service company and a command operations company (see Figure 8). The command operations company establishes and operates the airmobile division communications system. This system includes FM voice, AM-SSB, and RATT between echelons of the division headquarters and its major subordinate headquarters. The radio relay section provides point-to-point multichannel radio communications throughout the division area. The radio support sections provide terminal stations for each brigade and division artillery in the primary division operations nets. A division administration/

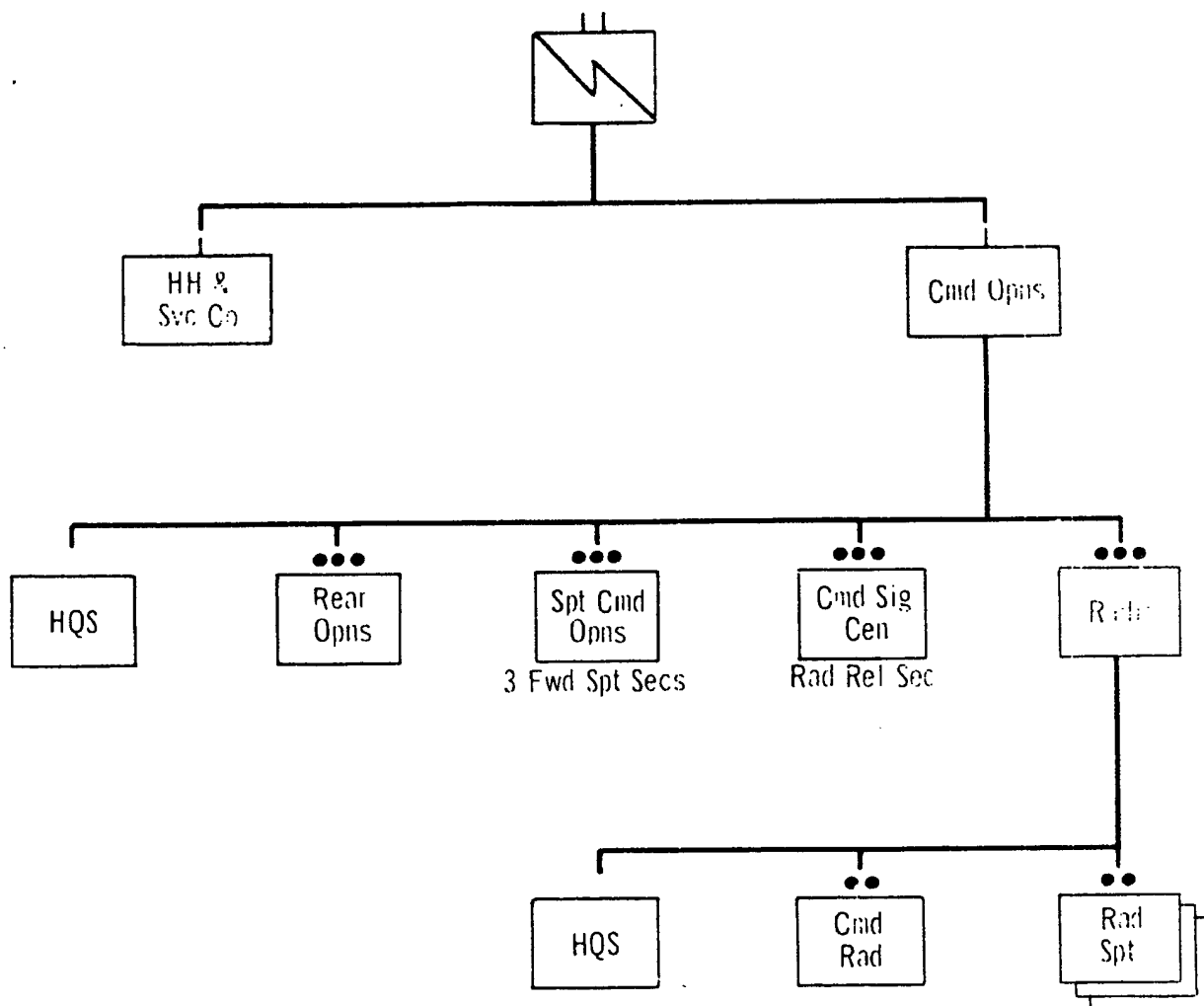


Fig. 8.--Signal Battalion

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Command Operations Company, Signal Battalion, Airmobile Division, TOE 11-207T; Headquarters, Headquarters and Service Company, Signal Battalion, Airmobile Division, TOE 11-206T; and Signal Battalion, Airmobile Division, TOE 11-205T.

logistics net is operated for each brigade, with a terminal station for the brigade provided by the forward support section.³³

The battalion is suited to the support of airmobile operations against insurgent forces by virtue of the AM-SSB radio, which is particularly compatible with operations over extended distances and in jungle terrain, and the fact that all battalion equipment is air transportable in assault support aircraft. The battalion is dependent upon an allocation of division aircraft in order to displace.

Support Command

The support command includes a headquarters company and band, administration company, medical battalion, supply and service battalion, transportation aircraft maintenance and supply battalion, and ground maintenance battalion (see Figure 9). As in the ROAD infantry division, the support command provides division level combat service support.³⁴

Support command elements are positioned in the division base and in the brigade bases. Their functions

³³U.S. Army Combat Developments Command, Air Assault Division Signal Battalion, ST 11-105-1 (Fort Monmouth, N. J.: Combat Developments Command, August 1964), p. 11.

³⁴U.S. Army Combat Developments Command, Support Command, Airmobile Division, TOE 29-41T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 1.

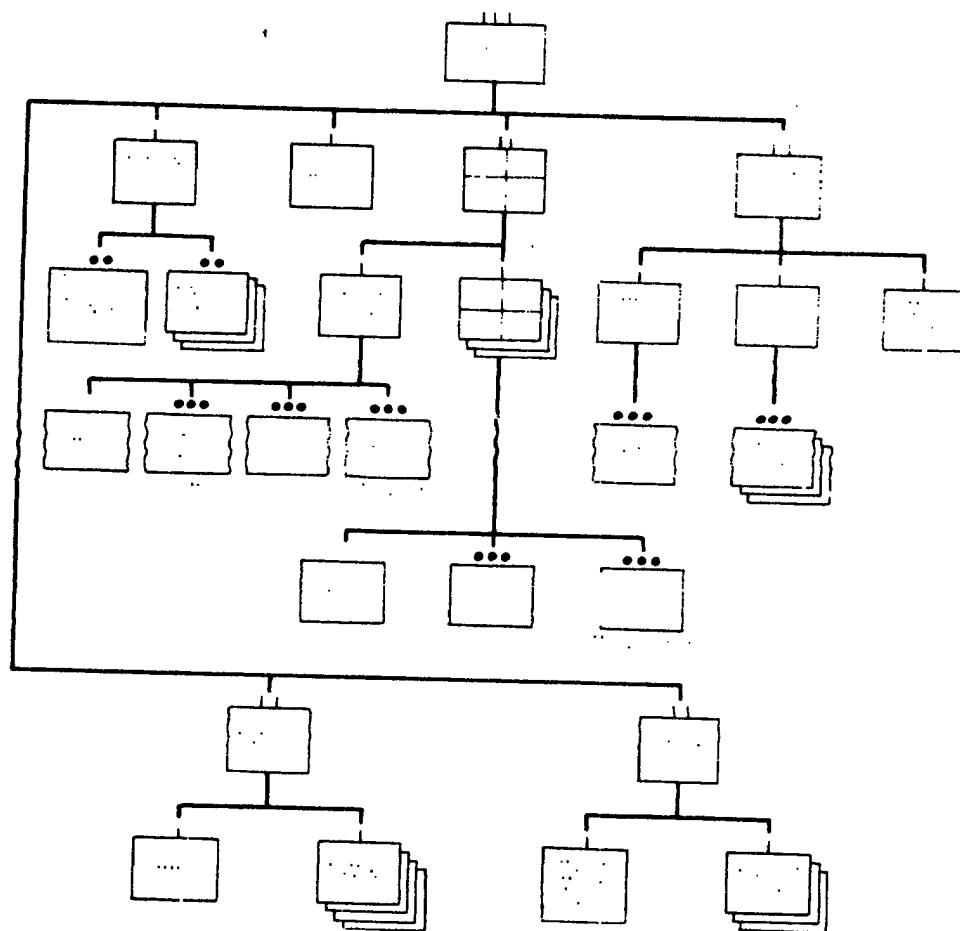


Fig. 9.--Support Command

Sources: U.S. Army Combat Developments Command TOEs published at Fort Belvoir, Va., 10 July 1965, as follows: Forward Support Detachment, Maintenance Battalion, Support Command, Airmobile Division, TOE 29-87T; Headquarters and Headquarters Company and Band, Support Command, Airmobile Division, TOE 29-42T; Headquarters and Support Company, Medical Battalion, Support Command, Airmobile Division, TOE 8-26T; Headquarters, Headquarters and Service Company, Support Battalion, Support Command, Airmobile Division, TOE 92-96T; Maintenance Battalion, Support Command, Airmobile Division, TOE 29-85T; Medical Battalion, Support Command, Airmobile Division, TOE 8-25T; Medical Company, Medical Battalion, Support Command, Airmobile Division, TOE 8-27T; Supply Battalion, Support Command, Airmobile Division, TOE 29-95T; Supply Company, Supply Battalion, Support Command, Airmobile Division, TOE 29-97T; Support Command, Airmobile Division, TOE 29-41T; and Transportation Aircraft Maintenance and Supply Battalion, Support Command, Airmobile Division, TOE 55-405T.

parallel their ROAD counterpart's. One of four main differences is dependence on the air line of communications, with resultant reduced supply levels at all echelons.³⁵ A second is the use of the forward service support control sections to coordinate combat service support to the brigades.³⁶ A third is increased dependence on evacuation of wounded instead of treatment at battalion level, with additional surgical load carried by the division clearing stations.³⁷ The last difference is the transportation aircraft maintenance and supply battalion, which handles the greatly expanded aircraft maintenance load of the division.³⁸

³⁵ Combat Developments Command, The Division, p. 6-2.

³⁶ Combat Developments Command, Headquarters and Headquarters Company and Band, Support Command, p. 2.

³⁷ Combat Developments Command, The Division, p. 6-7. This is a problem area. The airmobile division clearing station is smaller than its ROAD counterpart's and is rated at 60 patients, compared with 80. As previously discussed, aircraft availability normally denies the infantry battalion aid station accompanying the assault echelon, or following later with the tentage and other facilities to support surgery. The aid station must be established at a semi-permanent location, such as the brigade base, which is where a division clearing station is located. To attain rapid treatment of casualties, reasonable security and permanence for the battalion aid station, and best utilization of aircraft used in aeromedical evacuation, it appears feasible to collocate the battalion aid station and the division clearing station in the brigade base. Casualties could be received there, sorted, and treated as their conditions may dictate.

³⁸ Combat Developments Command, Support Command, p. 1.

The support command is appropriately tailored to provide unit distribution of supplies by air, on-site repairs, and medical evacuation and treatment for the airmobile division. Its capabilities, however, are tied to the allocation of aircraft to provide necessary supply support, supplemental medical evacuation, and maintenance teams with mobility commensurate with supported units. Support command elements normally placed in support of the brigades are air transportable in aircraft organic to the division. Other elements, which normally operate in the division base, are air transportable only in Air Force medium transport aircraft or in a helicopter which is not organic to the division, the CH-54.

Military Police Company

The airmobile division military police company has a security platoon and three military police platoons.³⁹

Due to reduced requirements for traffic control it is one platoon smaller than its ROAD counterpart and it has only half as many vehicles. To move with supported headquarters, military police platoons must be provided aircraft space as required.

³⁹U.S. Army Combat Developments Command, Military Police Company, Airmobile Division, TOE 19-87T (Fort Belvoir, Va.: Combat Developments Command, 10 July 1965), p. 2.

Analysis of Capabilities and Limitations

The airmobile division is essentially a ROAD infantry division without tanks, medium and heavy artillery, and trucks. Its strengths are in the areas of air and foot mobility, airmobile firepower, air and ground reconnaissance, and responsive command and control. Its effectiveness is dependent upon teamwork at all echelons, accurate and timely intelligence, landing zones, weather minimums, suppression of air defensive fires, operation of an air line of communications, and security of bases of operation.

With organic aircraft the division can simultaneously move the assault elements of two infantry battalions and three artillery batteries. Additionally, the combat elements of the three air cavalry troops are 100 per cent airmobile in their organic aircraft. At normal formation speed of eighty knots and with good teamwork in a smoothly coordinated move, the assault elements of a two-battalion brigade with one supporting artillery battalion can be displaced thirty kilometers in twelve minutes. Within an hour the remainder of the brigade can be closed, or the assault elements of a similar brigade can be displaced. A committed brigade of three battalions is normally supported by one assault helicopter battalion and elements of one assault support helicopter company. In this situation the assault

elements of one battalion can be displaced thirty kilometers in twelve minutes, two battalions in forty minutes, and three in little over an hour. In another hour the remainder of the brigade can be closed. A battalion supported by one assault helicopter company and elements of an assault support helicopter company can displace the assault elements of one rifle company thirty kilometers in twelve minutes, two companies in forty minutes, and three companies in little over an hour. The remainder of the battalion can be closed in another hour. In addition to displacing the maneuver units, these aircraft are used to displace artillery and engineer units and command post facilities. Aircraft available for tactical air mobility are reduced when replenishment of supplies or evacuation is required, because division aircraft are the primary means of transportation for combat service support within the division. Air mobility is enhanced if mobile refueling points are established as close as feasible to the battle area so that minimum time is lost in refueling aircraft formations. The impact of air mobility is that it permits the division to envelop terrain obstacles and enemy concentrations that could prevent or hinder movement by foot or vehicle.

The infantry battalions of the division are 100 per cent foot mobile, excluding their vehicular mounted

anti-tank weapons and communications and combat service support vehicles. Foot mobile operations in difficult terrain against insurgent forces do not require anti-tank weapons. Continuous communications are made possible by organic man-packed AM-SSB radios and aerial radio relay over normal FM channels. Foot mobility is enhanced by troops carrying minimum essential weapons, ammunition, food, and water, with frequent aerial replenishment and evacuation. The guerrilla has historically traveled lighter and moved through rugged terrain faster than the well equipped and better supplied soldier. By stripping to minimum essentials and supplementing with aerial transportation, the infantry elements of the airmobile division can move through difficult terrain as far and as fast as insurgent forces. Foot mobility is adversely affected if the friendly force does not enjoy a knowledge of the terrain comparable to the insurgent's. Another consideration is that aircraft operating in the vicinity of foot columns tend to warn the enemy of their approach. Counter-intelligence measures which should act to neutralize this tendency include normal aviation activity in a large area, dummy landings, and high velocity aerial delivery at night. Foot mobility of the airmobile division enables infantry elements to go into difficult terrain to search out insurgent forces, to close with and destroy them, and to maintain

direct pressure in pursuit while airmobile forces encircle to complete their destruction.

The airmobile division has a spectrum of weapons with the firepower and mobility to support both air and foot mobile operations. The individual and crew-served weapons of the infantry battalion can accompany the assault elements; however, the 106mm recoilless rifle may be omitted in the absence of a tank threat. Armed helicopters of the aerial weapons companies and air cavalry troops can provide suppressive fires for helicopter formations en route and direct fire support for committed maneuver units. Aerial rocket ships of the aerial rocket artillery batteries and air cavalry troops can provide preparatory fires on landing zones and direct fire support for committed maneuver units. The 105mm howitzer battalions can be displaced by helicopter to provide continuous indirect fire support for committed maneuver units. With their inherent mobility, all these means of fire support can be dispersed in support of wide ranging operations and then rapidly massed to support a single priority operation. While the division has significant firepower, it is dependent upon close air support and non-organic artillery for heavy, sustained fire support requirements, or for engaging targets that require medium or heavy artillery pieces.

By virtue of three air cavalry troops, the aerial surveillance platoon, commanders mounted in helicopters, pathfinders and infantry elements, the airmobile division has a significant capability for air and ground reconnaissance. Because the infantry battalion reconnaissance platoon and rifle companies do not have organic aircraft, aircraft must be allocated to them from division resources to support their coordinated air and ground reconnaissance. When conflicting aircraft requirements prevent this support, coordinated air and ground reconnaissance gives way to heavy reliance on air reconnaissance by aerial scouts and commanders.

An essential element of airmobile warfare is immediately responsive command and control. The airmobile division exercises this by means of aerial command posts and multiple means of radio communications. The aerial command posts permit commanders to study the battlefield visually, to maintain frequent personal contact with higher, lower, adjacent, and supporting headquarters, and to move rapidly to influence critical actions. Multiple means of radio communications permit continuous communications between widely separated headquarters, and parallel nets over FM, AM-SSB, and UHF facilitate uninterrupted contact between commanders. Commanders are thus permitted to stay abreast of rapidly

changing situations, to initiate troop movements while concurrently planning at several echelons, and to make adjustments in tactical plans to take advantage of up-to-the-minute intelligence.

The airmobile division has the equipment to permit quick reaction to fleeting opportunities, but capitalizing on this capability requires teamwork at all echelons. With mutual understanding and common procedures between all members of an airmobile task force, operations can be planned while forces are en route to the objective area. As intelligence is developed and refined, artillery can be prepositioned and infantry and aviation units can be "married-up" at hastily selected and coordinated pickup zones. Concurrently the commander forms his plan and disseminates it in short, fragmentary orders by radio to units that react rapidly, similar to a machine reacting to the touch of its operator. Successive close air support strikes sweep the enemy force and selected landing zones. These are followed without interruption by barrages of aerial rocket artillery which, in turn, give way to a sweep by aerial gun ships. Under protection of the aerial gun ships the assault helicopters land and discharge the infantry, supported by close air support, aerial rocket artillery, and prepositioned artillery, to secure the landing zone and attack toward

initial objectives.

Withdrawing a force by air while under enemy pressure requires the same practiced coordination between the infantry and the aviation and fire support elements, except possibly there is even less margin for error. A company size airmobile operation may involve about thirty aircraft, and a brigade size about 150.⁴⁰ Air traffic control and keeping aircraft refueled, rearmed, and immediately available require close coordination with the demands of the ground tactical plan. Only through teamwork born of practiced common procedures can the airmobile division effectively concentrate its combat power at the decisive time and place, and do it with reduced reaction time that fully exploits the capabilities of its equipment.

Accurate and timely intelligence is fundamental to airmobile warfare. While the division reacts with speed and firepower, its aircraft and soldiers lack armor shielding and are therefore vulnerable to air defensive fires, especially during the pickup or landing phases of an airmobile operation. Failure to locate and neutralize weapons capable

⁴⁰These figures include UH-1D for troop lift, CH-47 for artillery pieces, and supporting aircraft of an air cavalry troop, aerial rocket artillery battery, aerial weapons company, and Air Force close air support aircraft. Additionally, aerial command posts for several different commanders may be in the area.

of firing on the landing zone prior to landing an airmobile force, or landing the force in the proximity of an organized enemy position with prepared emplacements and overhead cover, can result in unacceptable losses to the airmobile force. The effect of this fatal error can be reduced by the liberal application of aerial fires, but the probability of making the error can be reduced only by the commander who has detailed current knowledge of the enemy situation when he makes the decision to land the force. Good intelligence helps the infantry force to determine rapidly the local situation and the lay of the ground in order to prevent ambush after landing. If the enemy is not located, especially in operations against insurgent forces, the combat power of an airmobile task force may be ready but never called, or may be wasted in futile chase of shadows. Finally, intelligence must be timely. A day, an hour, or even a few minutes may permit a change in the enemy situation that is significant to the airmobile force, such as the manning in strength of a previously undefended landing zone. The sensitivity of the airmobile division to accurate and timely intelligence might be compared to a boxer with fast, powerful fists and a slightly glass jaw. As long as he can see his opponent he can hurt him and still protect his glass jaw. Should his eyes fail, his lethal punches may miss and his glass jaw

will become exposed.

Although the airmobile division operates relatively free of the terrain, it is dependent upon reasonably clear, flat areas for landing zones. Depending on the size of surrounding trees, a single helicopter can land in an area the size of a baseball diamond and a company of helicopters can land in an area the size of the outfield. In terrain offering abundant landing zones, the airmobile division can exercise all of its intrinsic flexibility to move troops rapidly about the battlefield. However, airmobile task forces are canalized when landing zones are scarce. An alert enemy will further compound this by denying available landing zones. After initial troops are landed this limitation can be somewhat overcome by engineer work to expand existing small clearings into adequate, large landing zones.

Because weather influences aviation operations, the airmobile division is subject to its effects. Although a limiting factor, it should be remembered that large scale airmobile operations have been conducted with a ceiling of 300 feet and visibility of a half mile. Additionally, heavy rain, which reduces some soils to a quagmire, restricts the maneuver of motorized forces, and slippery mud slows even foot movement. Except for prolonged weather conditions below certain low minimums, adverse weather may

actually improve the relative mobility of the airmobile division over its surface-bound enemy. Ground controlled approaches at fixed wing landing zones will permit continuous operation of the air line of communications during adverse weather. Low ceilings and visibility will deny close air support, but this shortage can be temporarily alleviated by full use of aerial rocket artillery, aerial gun ships, and surface artillery.

Vulnerability of aircraft to air defensive fires is another limitation of the airmobile division. Helicopter formations can reduce this vulnerability by flying evasive routes at tree top level so as to provide minimum exposure. Additionally, the helicopter airframe has demonstrated ability to withstand numerous small caliber hits, and damaged aircraft have been able to make safe landings for subsequent recovery.⁴¹ Good intelligence reduces damage from air defense fires by enabling commanders to keep aircraft away from strongly defended positions and use undefended landing zones to make unopposed landings. To the extent that suppressive fires reduce air defense fires they also reduce the effect of this limitation.

⁴¹Personal letter from William Roll, Maj, Inf, S3, 1st Battalion, 12th Cavalry, 1st Cavalry Division (Airmobile), 21 January 1966.

Combat operations depend upon logistics and can be pursued only as long as they can be supported. Logistics in the airmobile division depend on the air line of communications. The division and brigade bases of operation are supplied by fixed wing aircraft from outside the division. These aircraft may be increased as operations demand and as availability within the theater permits. Supply operations and evacuation forward of the brigade base are conducted with helicopter organic to the division, although some non-organic heavy helicopters provide support on a mission basis.⁴² Resupply of an airmobile task force can normally be handled within the capability of its attached aircraft since, when the tactical situation permits, they can carry forward rations, ammunition, and water when returning from refueling runs. The critical factor is the location of fixed wing landing zones. Should operations be conducted at an extended distance from a fixed wing landing zone, the air line of communications would place demands on the division helicopters which, in turn, would adversely affect their availability to support combat operations.

The last limiting factor discussed here is the

⁴²U.S. Army Combat Developments Command, Air Lines of Communication (AirLOC) Operations, In Support of the Air Assault Division, ST 55-7 (Fort Belvoir, Va.: Combat Developments Command, June 1963), p. 4.

requirement for securing bases of operation. In operations in which bases of operation are behind friendly lines the security requirement is inherently reduced. In the full tide of airmobile operations against insurgent forces, however, there is a definite requirement for security of the logistic installations and headquarters in the bases of operation. Because headquarters personnel, aircraft mechanics, and supply handlers cannot do their primary job and prepare and defend a perimeter at the same time, infantry troops must be diverted to the security role. One infantry battalion or a brigade of three battalions, depending on the threat, might be required to defend the division base. Remembering that there is a fixed wing landing zone at the brigade base, up to one infantry battalion may be required to secure it. The result is that two to five battalions, more than half the infantry strength of the division, could conceivably be required for security of bases of operations. This situation would be intolerable and must be prevented by clearing insurgent forces from an area projected for a base of operations, maintaining pressure on the insurgent force so that it cannot mount a strike against the base, and grouping as many headquarters and logistic installations as possible into one base so that the maximum security can be provided by a minimum of security troops. The danger in

massing is vulnerability to artillery and mortar fires, a lesser capability of insurgent forces than their ability to conduct a raid by stealth and one more easily detected and neutralized by friendly air and foot patrols.

The capabilities of the airmobile division are considerable but finite. It has limitations that are also finite. Knowing and understanding each capability and limitation, it is possible to theoretically project the division into the geographical area of South Vietnam, pose it against the insurgent forces there, and analyze the current concept for employment of the division in that environment.

CHAPTER III

MILITARY GEOGRAPHY OF THE REPUBLIC OF VIETNAM

. . . no man in his right mind would advocate sending our ground forces into continental [Asia] . . .¹

--Douglas MacArthur
General of the Army

To properly analyze the current concept for employment of the airmobile division against insurgent forces in an underdeveloped country requires some understanding of the terrain, climate, and people of that country. Particularly important is a grasp of the extent to which these factors affect the capabilities and limitations of the division and how they are used to advantage by the insurgent force.

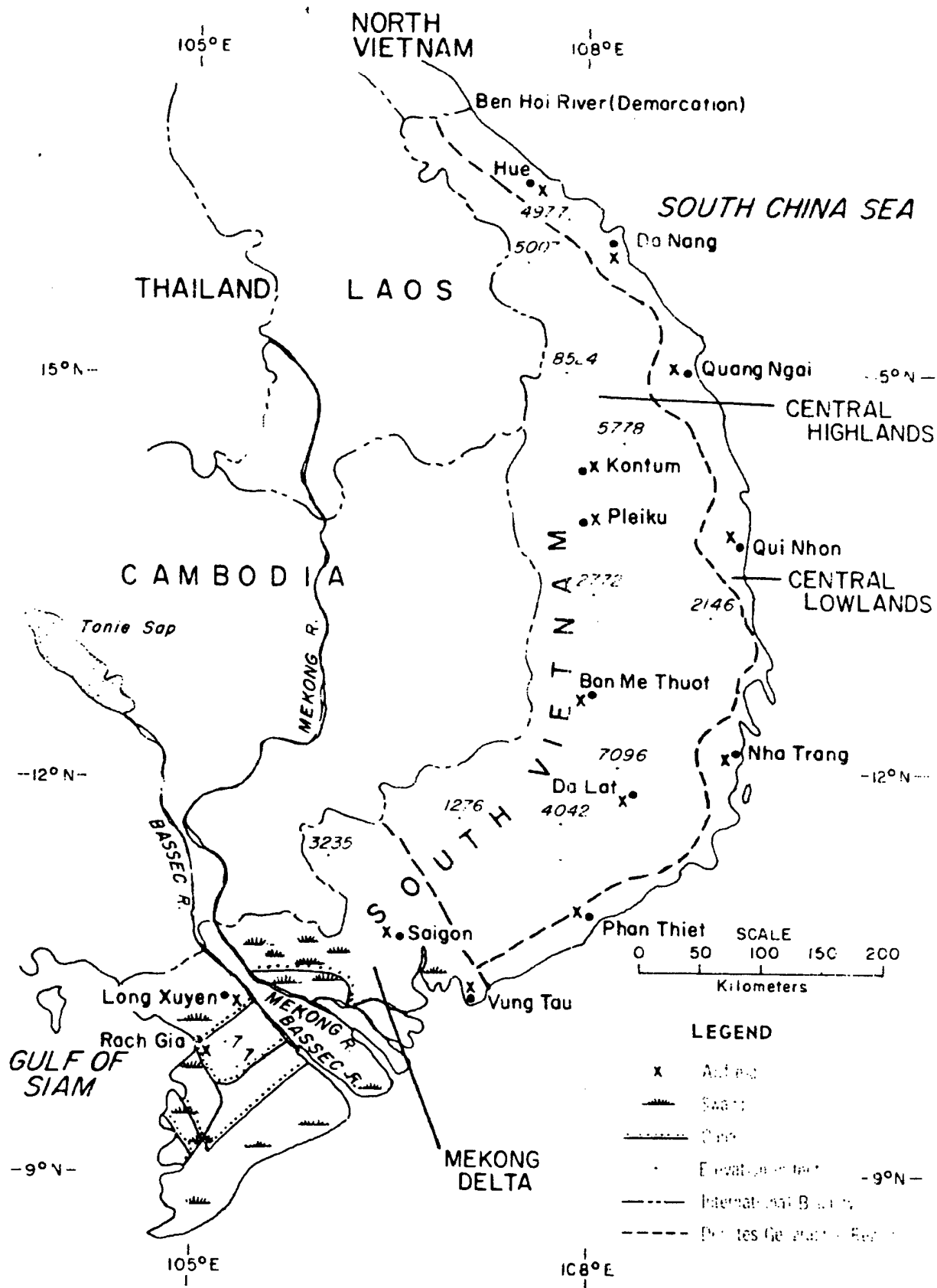
The Republic of Vietnam is the product of the conflict of stronger powers which, for political and military expediency, partitioned Vietnam near the seventeenth parallel in 1954 (see Plate I). Tossed about helplessly on the sea of history, this area has been subjugated in turn by the

¹U.S., Senate, "Joint Meeting of the Two Houses of the U.S. Congress, 19 April 1951," Representative Speeches of General of the Army Douglas MacArthur, 88th Cong., 2d Sess., Document No. 95, compiled by Library of Congress Legislative Reference Service (Washington: U.S. Government Printing Office, 1964), p. 18.

PLATE I

THE REPUBLIC OF VIETNAM (SOUTH VIETNAM)

Sources: "Viet Nam, Cambodia, Laos and Eastern Thailand" [a loose map], National Geographic Magazine, CXXVII (January 1965); and U.S., Department of the Army, U.S. Army Area Handbook for Vietnam, DA Pamphlet No. 550-40 (Washington: U.S. Government Printing Office, October 1964), p. 33.



Chinese, French, Japanese, and again the French. Today it is threatened by the other sibling of its historic past, the Democratic Republic of Vietnam, a member of the world communist sphere.

Extending in a crescent nearly a thousand kilometers south from the seventeenth parallel and facing on the South China Sea and the Gulf of Siam, the Republic of Vietnam is the coastal country of the Southeast Asia peninsula. It shares boundaries with communist North Vietnam, subjugated and neutral Laos, and a passively neutral Cambodia. The demarcation line between South Vietnam and North Vietnam, established by the Geneva Convention of 1954, is the Ben Hai River. An ill-defined western boundary passes through sparsely populated, densely forested mountains south to the twentieth parallel and then across the Mekong River delta.

The Republic of Vietnam is surrounded by neighbors who are actively or passively supporting the subversive insurgency which threatens its freedom. Were it not for Free World aid and moral support South Vietnam would probably be already subjugated and assimilated by the world communist sphere.

Land Forms and Drainage

Varying land forms divide South Vietnam into three

regions: the central highlands, the central lowlands, and the Mekong delta (see Plate I, page 60).

The central highlands encompass the mountainous area which extends 700 kilometers south from the demarcation line and varies from 30 to 200 kilometers in width. Rugged mountains, the Chaîne Annamitique, with peaks of 4,500 to 8,000 feet elevation, stretch from Da Nang south to Da Lat (see Plate II). Short, narrow, deep valleys dissect the mountain range, which is the drainage divide between rivers flowing west into the Mekong River and those draining east to the South China Sea. On the west slope of the mountains four plateaus stretch nearly 500 kilometers north of Kontum to the Mekong delta (see Plate III). The plateaus vary in elevation from one to three thousand feet and are gently rolling with scattered peaks, except west of Da Lat, where hills and low mountains cross the plateau.²

The central lowlands consist of coastal plains and sand dunes which predominate from the Ben Hai River to Vung Tau (see Plate IV). Plains three to forty kilometers wide, around the mouths of rivers flowing to the sea, are interrupted by rugged mountains which spur out from the Chaîne

²U.S., Department of the Army, U.S. Army Area Handbook for Vietnam, DA Pamphlet No. 550-40 (Washington: U.S. Government Printing Office, October 1964), pp. 37-38.

PLATE II

FORESTED, RUGGED MOUNTAINS OF CHAINE ANNAMITIQUE
IN CENTRAL HIGHLANDS EAST OF KONTUM

Source: Howard Sochurek, "Americans in Action in
Viet Nam," National Geographic Magazine, CXXVII (January
1965), 61.



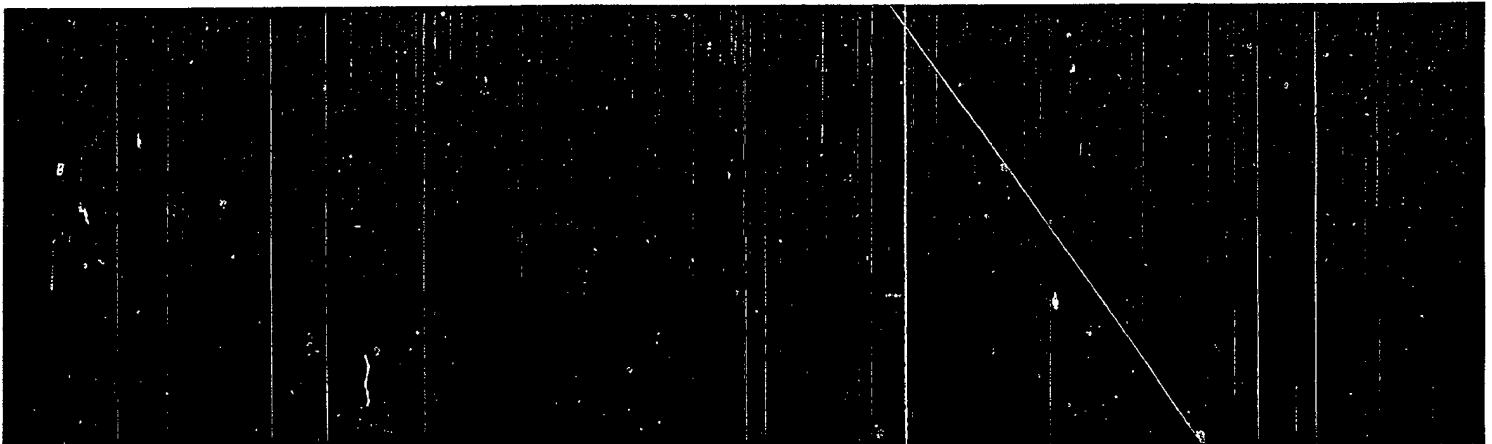
PLATE III

MONTAGNARD HAMLET SOUTH OF PLEIKU ON A PLATEAU OF CENTRAL HIGHLANDS

CHaine ANNAMITIQUE IN BACKGROUND TO EAST

DENSE SECONDARY FOREST

Source: Howard Sochurek, "Americans in Action in Viet Nam," National Geographic Magazine, CXXVII (January 1965), 40.



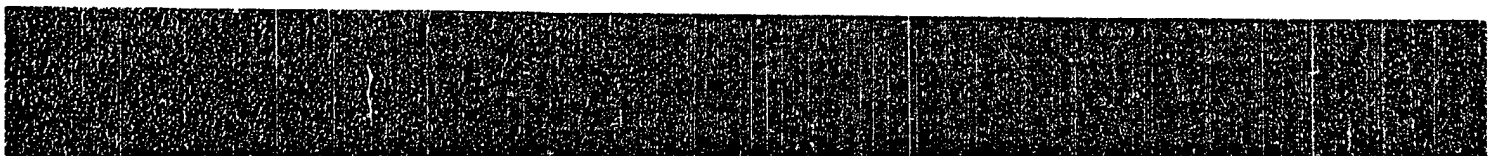
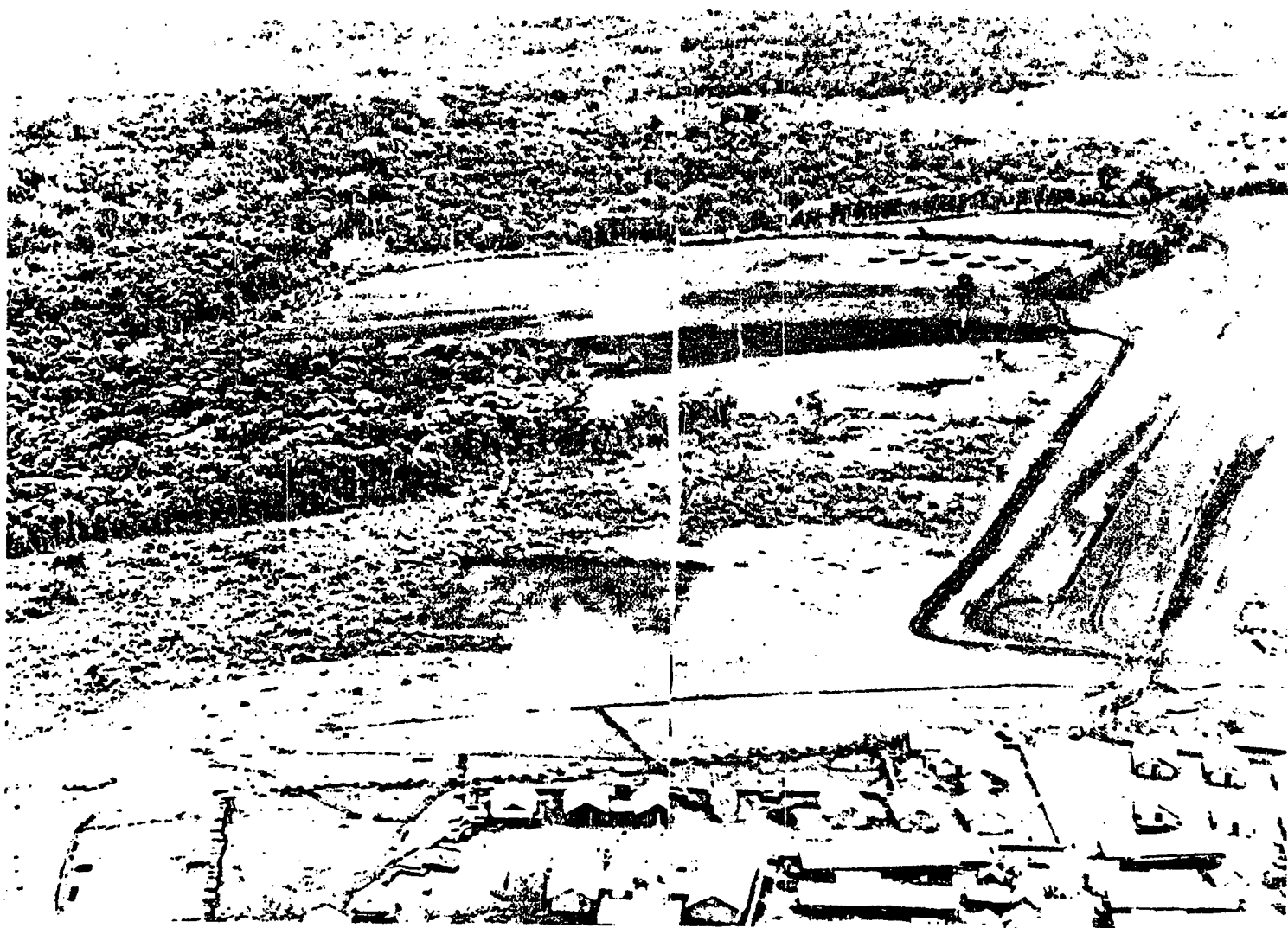
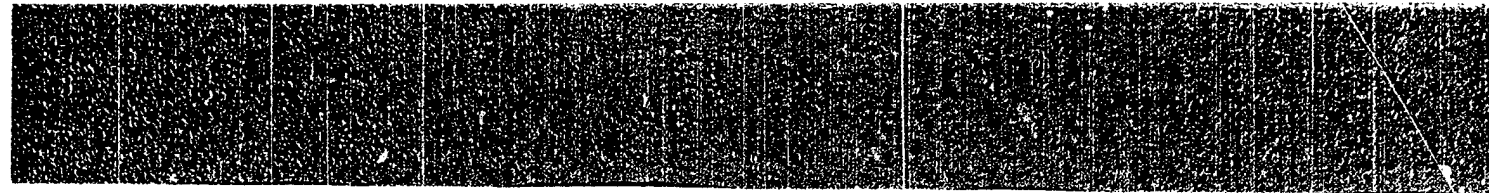
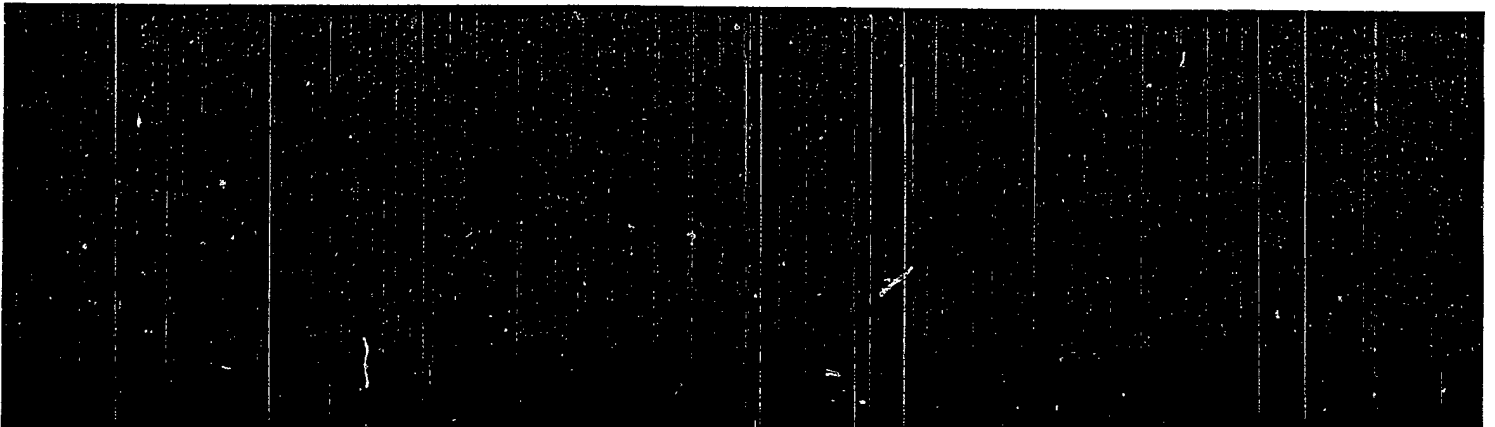


PLATE IV

FINGERS OF RUGGED MOUNTAINS REACHING TO SEA THROUGH
FERTILE PLAINS OF CENTRAL LOWLANDS

Source: Howard Sochurek, "Slow Train Through Viet Nam's War," National Geographic Magazine, CXXVI (September 1964), 438.





Asiamatique.³

Extending 400 kilometers from the northern border of Vietnam to the southern tip of the country, the Mekong delta is a continuous plain (see Plate VI). It varies from 100 to 200 kilometers in width and is interrupted by the middle Mekong and Bassac rivers, numerous streams and canals, and extensive rice fields which are inundated as much as six months during the year. Nearly impenetrable swamps and marshes dominate the coastline of the Mekong delta.⁴

The regional names remain from the pre-partition of Vietnam, but they are adequately described today as simply highlands, lowlands, and delta.

The 1st Cavalry Division (Airmobile) is currently stationed at An Khe, in the highlands between Pleiku and Qui Nhon. The effects of that area as well as other regions of South Vietnam on airmobile operations will be discussed later in this chapter.

Climate

The monsoons of Asia dominate the climate of South Vietnam. The southwest monsoon affects the country during the summer, giving way to the northeast monsoon during the winter. There are short transitional seasons between the

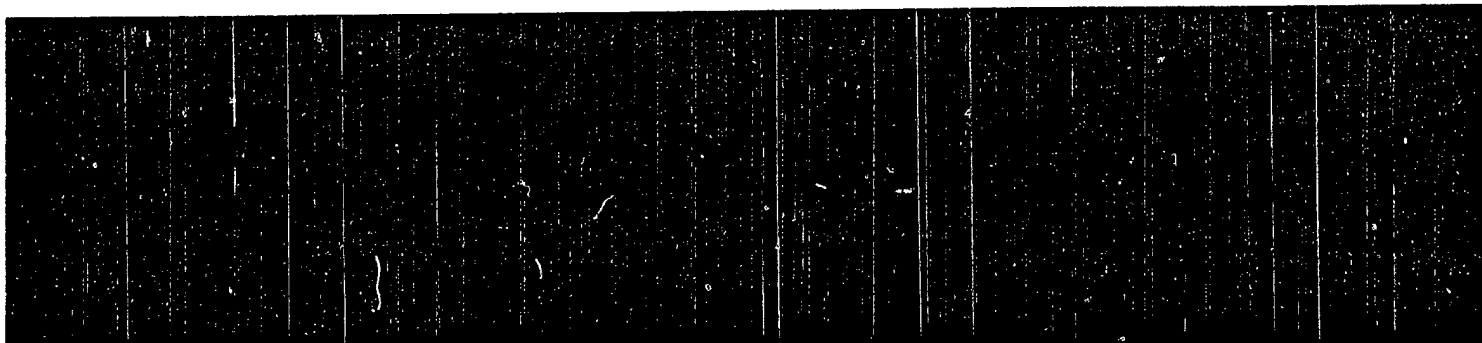
³ibid., pp. 38-39.

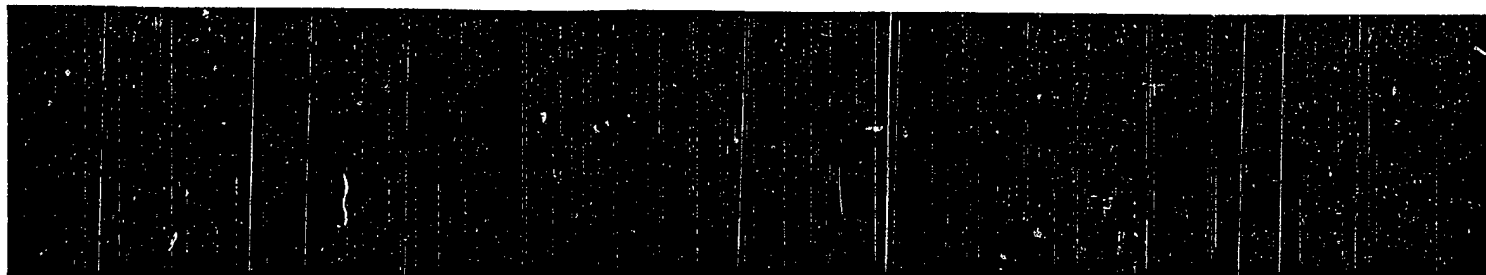
⁴ibid., pp. 33-37.

PLATE V

MEKONG DELTA RICE PADDY LAND

Source: Dickey Chapelle, "Water War in Viet Nam," National Geographic Magazine, CXXIX (February 1966), 284.





two monsoons. Drastic difference in weather between regions is caused by the Chaine Annamitique, which affects the rain from the monsoons much as the Rocky Mountains influence rainfall in the United States.

From mid-May to early October the summer monsoon brings warm, moist, unstable air with much cloudiness, rain-showers, and thunderstorms to the highlands and delta. While the rest of the country is under rain the winds of Laos bring warm dry air to the eastern slopes of the Chaine Annamitique and the lowlands. Except in the lowlands, daily local showers, often torrential in nature, occur during the afternoons and early evenings. Most of Saigon's 77 inches of rain and Kontum's 74 inches of rain falls during this season when temperatures are highest, ranging from a low in the sixties in the highlands to a high in the nineties at Hue and Nha Trang.⁵

An autumn transition period occurs in South Vietnam between early October and early November, as air masses shift between monsoons and temperatures decline slightly. Clear skies emerge in the Mekong delta and the highlands, but the lowlands receive cloudiness, heavy rains, and

⁵Canada, Department of Mines and Technical Surveys, Geographical Branch, Indo-China: A Geographical Appreciation (Foreign Geography Information Series No. 6; Ottawa: Department of Mines and Technical Surveys, 1953), pp. 16-17.

damaging typhoons.⁶

The winter monsoon season, from early November to mid-March, is caused by a cooler air flow from the South China Sea which brings low clouds and drizzle to the lowlands. Most of Hue's 128 inches of rain and Da Nang's 84 inches of rain fall between September and December. Crachin (widespread fog and drizzle lasting two to five days) occurs frequently in the lowlands. Early morning fog is experienced throughout the country, especially in the highlands, but usually dissipates by noon. Average temperatures range from Saigon's high in the low nineties in March to Da Lat's low in the mid-fifties in January.⁷

Monsoonal trends reverse during the spring transition from mid-March to mid-May. In the highlands and delta clear skies gradually give way to increasingly heavy rains, and the reverse occurs in the lowlands. Temperatures rise slightly.⁸

From the foregoing discussion it is apparent that the tropical climate of South Vietnam will affect the personnel, equipment, and aviation operations of the airmobile division in varying ways, depending on the region and season considered. These effects are discussed at the end of this

⁶Ibid.

⁷Ibid.

⁸Ibid.

chapter.

Vegetation and Surface Materials

Regional differences in land forms and climate are accompanied by variations in vegetation and surface materials. Some 40 per cent of this tropical country is forested and the rest is grassland, swamp, paddy land, or cultivated fields.

The highlands are nearly equally divided between primary and secondary broadleaf evergreen forests, with savannah grasslands on the plateaus. Primary forest (see Plate II, page 64, and Plate VI), common to remote, unsettled areas, has a continuous, dark green canopy formed by trees a hundred feet tall. There is little undergrowth. Where man has lived, secondary forest (see Plate III, page 66) predominates, characterized by a discontinuous canopy of seventy-foot trees and dense undergrowth. Sharp-edged savannah grass (see Plate III) stands three to five feet tall on the plateaus and is interrupted by brush thickets and scattered dryland cultivation. Tea plantations (see Plate VII) are numerous, and there are isolated swamp forests and bamboo thickets in deep river valleys. Rubber plantations are three to eight kilometers across, with no undergrowth. Sandstone and limestone cover much of the

PLATE VI



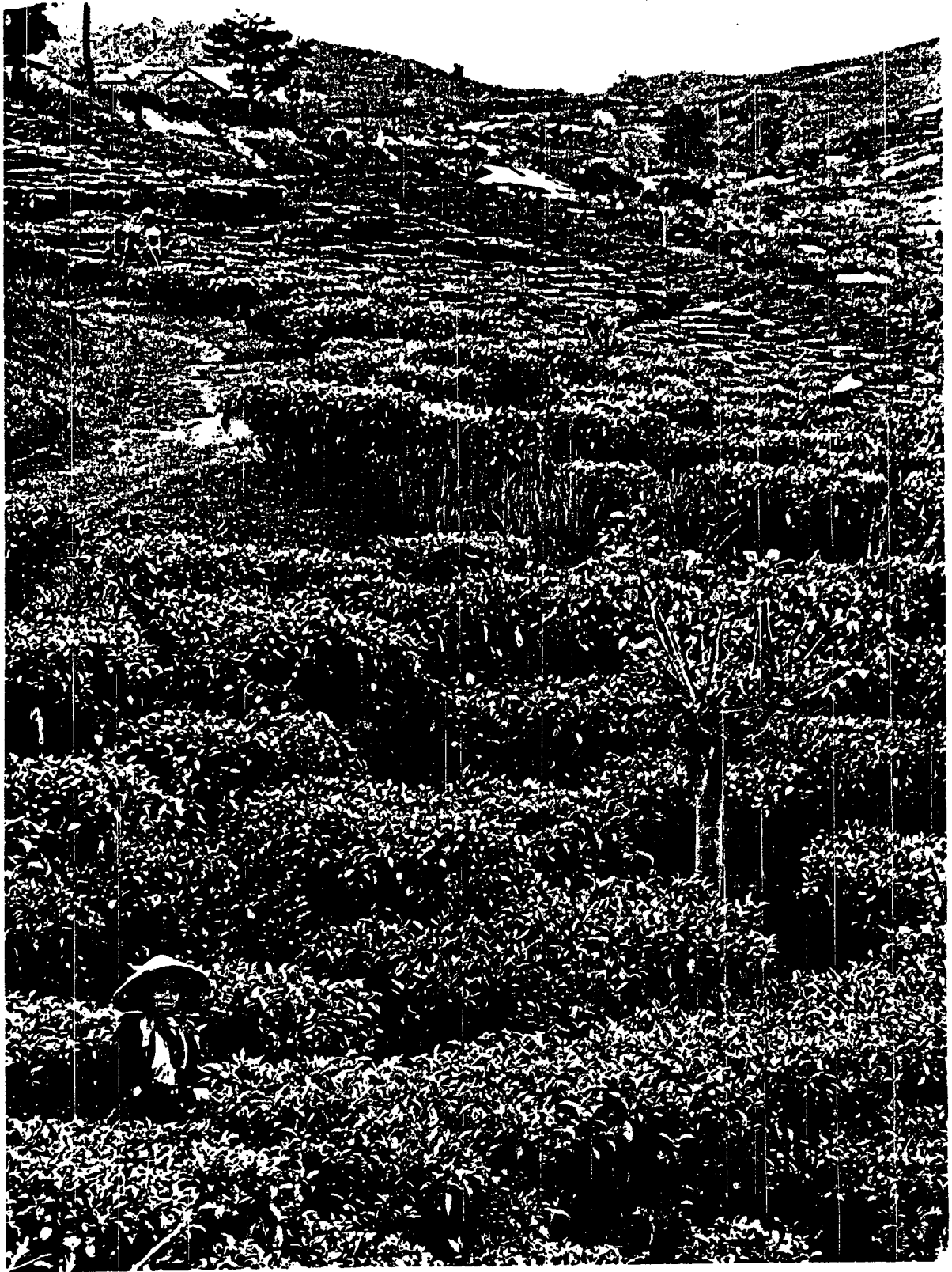
BROADLEAF EVERGREEN FOREST IN CENTRAL LOWLANDS
NORTH OF SAIGON

Source: Howard Sochurek, "Slow Train Through Viet Nam's War," National Geographic Magazine, CXXVI (September 1964), 412.

PLATE VII

TEA PLANTATION ON PLATEAU OF CENTRAL HIGHLANDS
NEAR DA LAT

Source: Howard Sochurek, "Slow Train Through Viet Nam's War," National Geographic Magazine, CXXVI (September 1964), 436.



Chaine Annamitique, and the highland's red clay soils are firm when dry and a sticky quagmire when wet.⁹

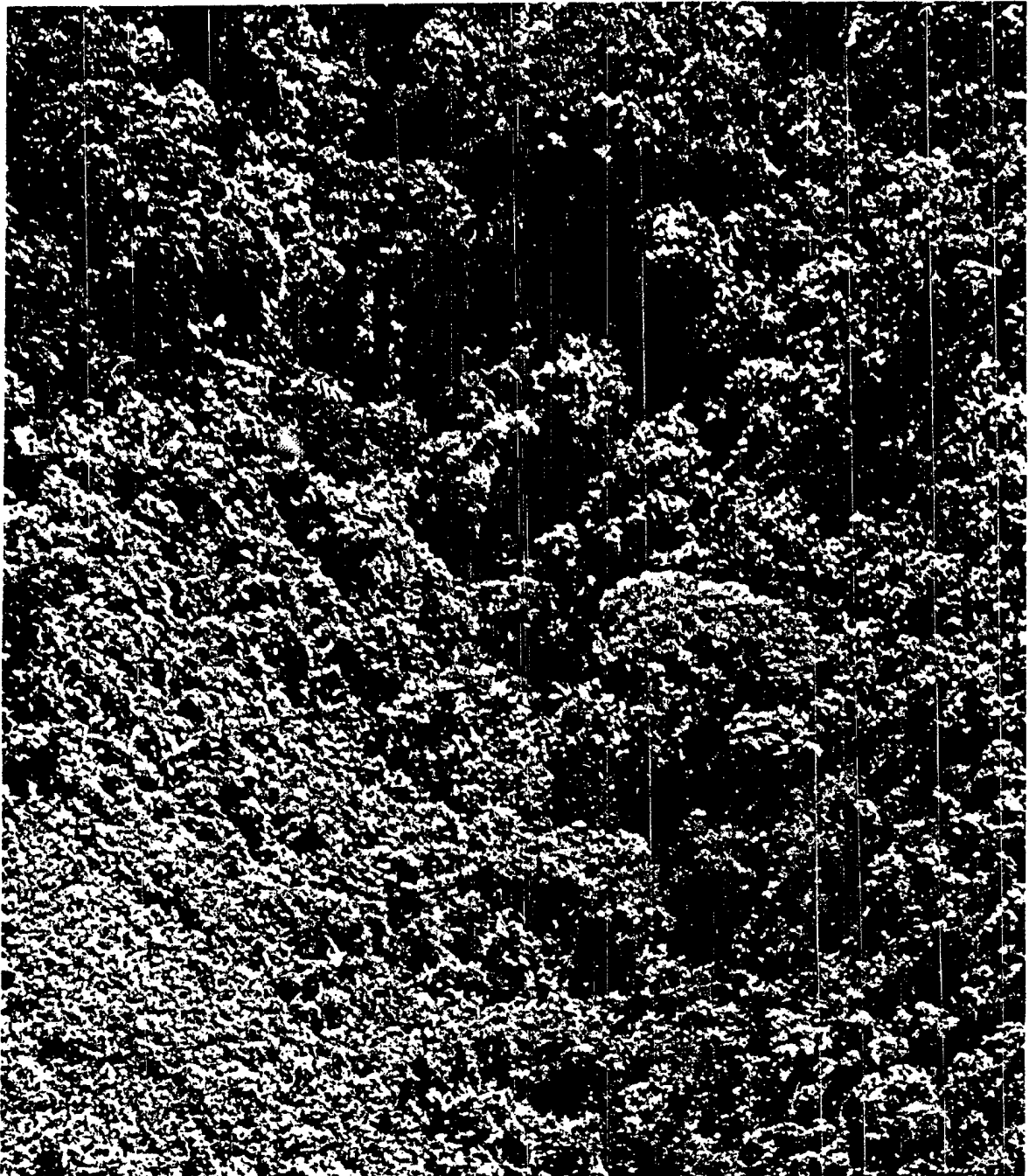
The rugged mountainous ridges interrupting the lowlands are covered with primary and secondary forests (see Plates VIII and IX). Lowland plains are planted in palms, fruit trees, and cultivated crops, interrupted by stands of bamboo, broadleaf evergreen trees, and dune grass (see Plate IV, page 68). Wetland rice is cultivated in the alluvial soils near rivers, with one crop in the southern half and two in the northern half where crachin permits continuous growing seasons (see Plates IV and IX).¹⁰

Wetland rice and swamp forest describe the delta area, although dry crops are cultivated where possible and bamboo and palm thickets abound. Broadleaf evergreen and mangrove trees provide a continuous, dark green canopy over nearly impenetrable intertwined roots and undergrowth in coastal swamps (see Plate X). A marsh of three- to seven-foot tall aquatic grass, inundated during the summer monsoon, stretches from the coastal swamps to the cultivated river

⁹ Ibid., p. 20; and U.S., Department of State, Laos--Viet-Nam Boundary, International Boundary Study No. 35 (Washington: The Geographer, 29 June 1964), p. 1.

¹⁰ U.S., The Department of Defense, The Military Assistance Institute, Country Study: Republic of Viet Nam (Washington: American Institutes for Research, 1965), pp. 39-44.

PLATE VIII



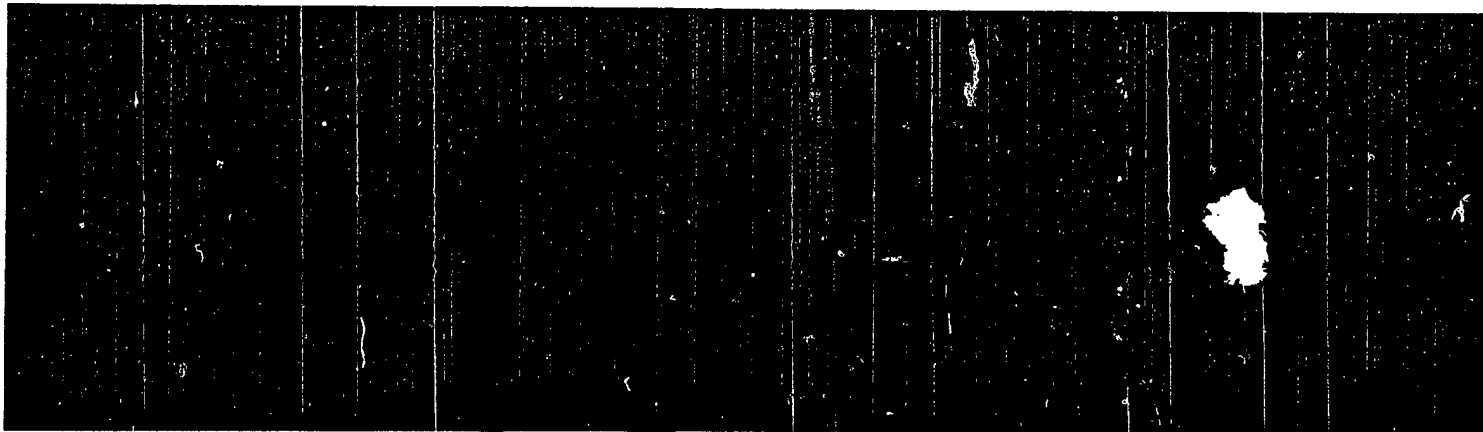
CLOSE-UP OF BROADLEAF EVERGREEN FOREST
IN CENTRAL LOWLANDS

Source: Howard Sochurek, "Slow Train Through Viet Nam's War," National Geographic Magazine, CXXVI (September 1964), 423.

PLATE IX

FORESTED MOUNTAIN AND CULTIVATED PLAIN OF CENTRAL LOWLANDS

Source: Howard Sochurek, "Slow Train Through Viet Nam's War," National Geographic Magazine, CXXVI (September 1964), 422.



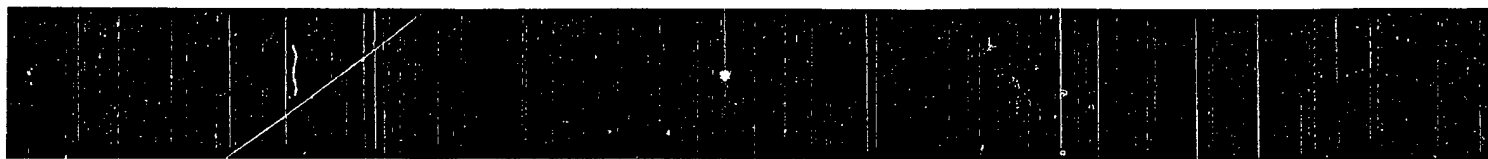
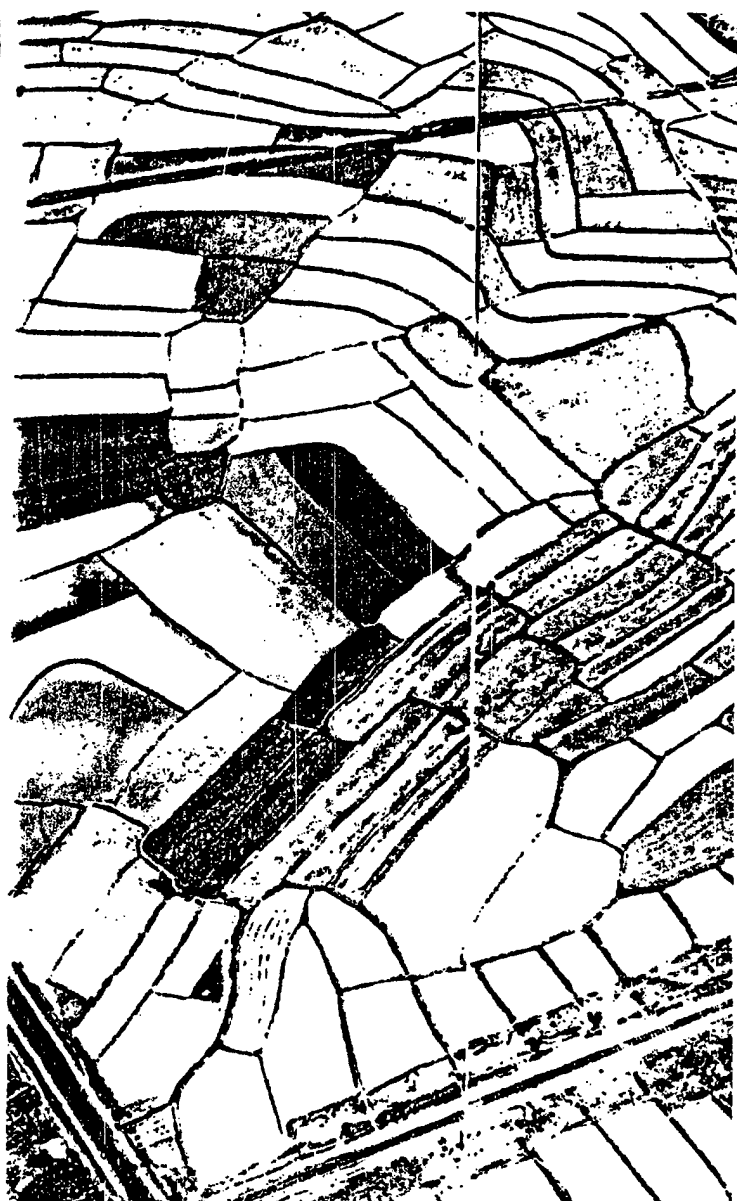
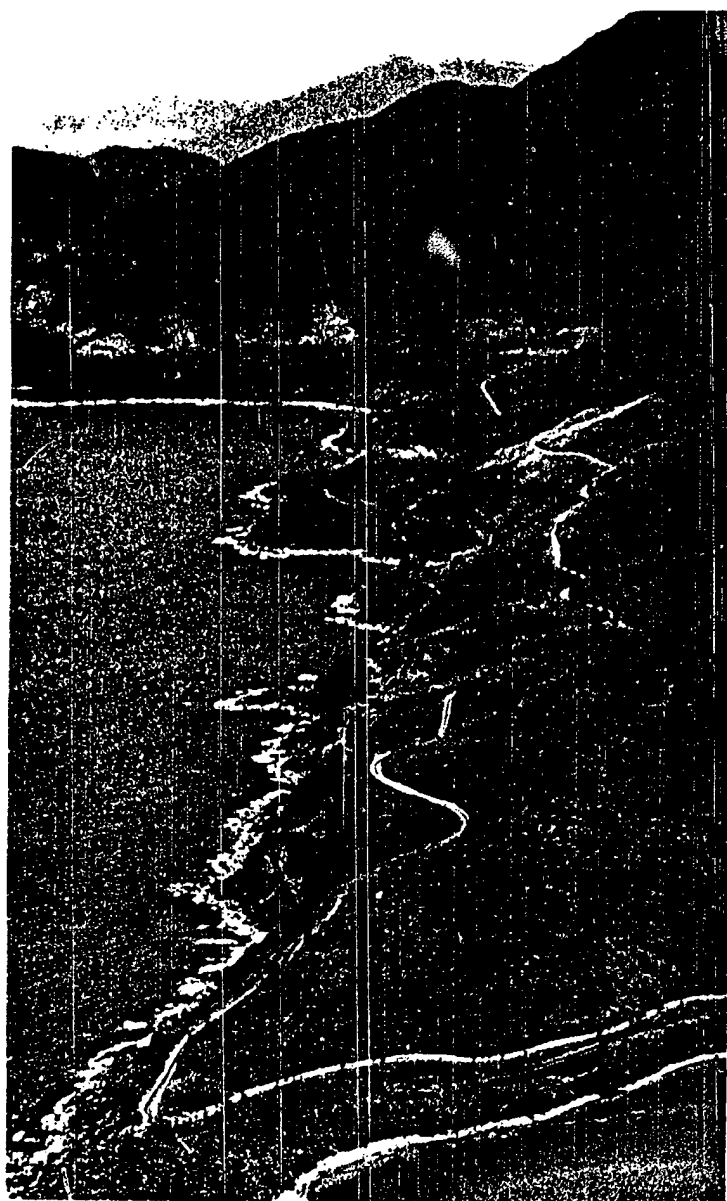
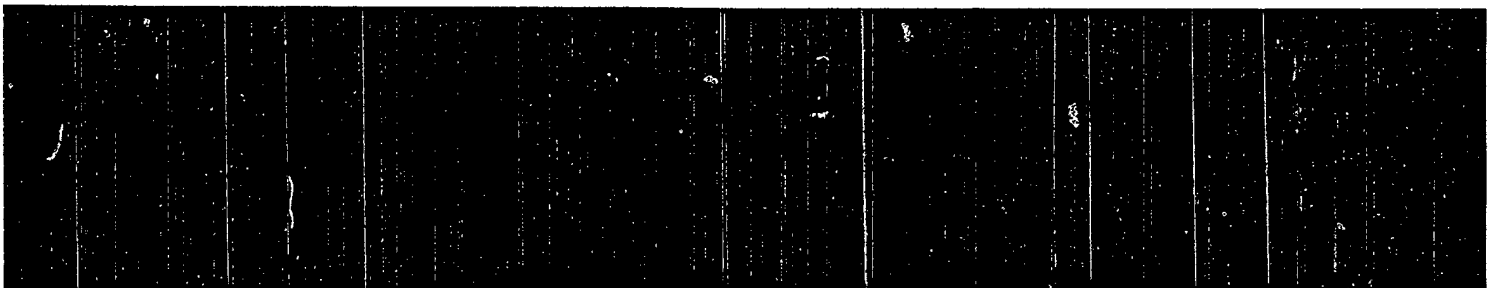


PLATE X



CANAL AND SWAMP FOREST IN MEKONG DELTA

Source: Dickey Chapelle, "Water War in Viet Nam," National Geographic Magazine, CXXIX (February 1966), 274.



deltas. Rice paddies are flooded from June to March (see Plate V, page 71, and Plate XI).¹¹

South Vietnam's extensive tropical vegetation and flooded lands will limit the ability of the airmobile division to locate insurgent forces, will restrict usable landing zones, and will even attenuate effects of its firepower. These considerations are discussed at the end of this chapter.

Manmade Features

Manmade features vary regionally throughout South Vietnam. Built-up areas and transportation modes are mainly located on the fertile river plains of the delta and on the lowlands.

Principal cities include Saigon, Hue, Da Nang, Da Lat, and Nha Trang. The twin cities of Saigon and Cho Lon, with a combined population of over two million people, constitute the major port and industrial and marketing complex of South Vietnam. Da Nang, with over 100,000 people, is a major port located on an excellent harbor of great potential.¹² Other administrative and agricultural centers include Kontum, Pleiku, Qui Nhon, Da Lat, Phan Thiet, Vung

¹¹Canada, Department of Mines, p. 21.

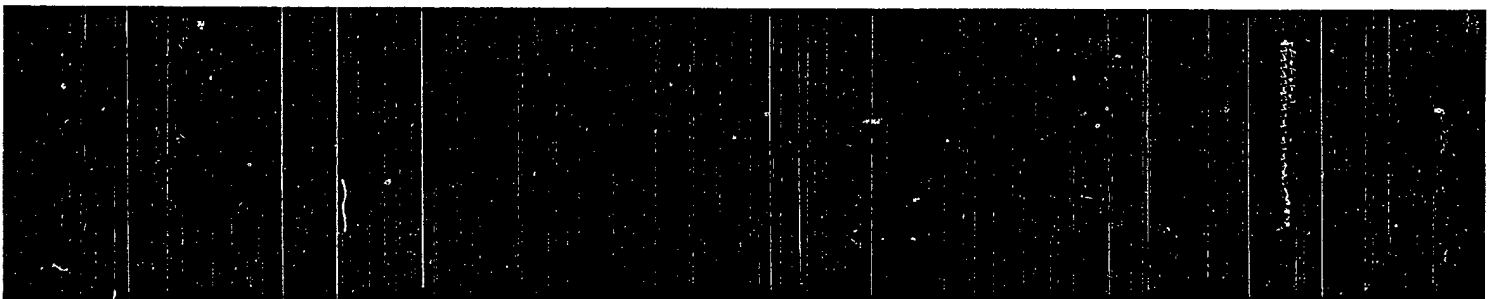
¹²U.S., Department of the Army, pp. 50-51.

PLATE XI



RICE PADDY LAND AND STAND OF PALM TREES IN MEKONG DELTA

Source: Dickey Chapelle, "Water War in Viet Nam," National Geographic Magazine, CXXIX (February 1966), 282.



Tau, Long Xuyen, and Rach Gia. The fertile delta and lowlands are dotted with small farm villages and scattered hamlets, but the not-so-fertile highlands are sparsely populated.¹³

In 1962 there were 14,300 kilometers of roads, including 4,000 kilometers of all-weather and 4,500 kilometers of limited all-weather roads, with the rest being dirt. National Route 1 links Saigon with the coastal cities up to the demarcation line. Other roads link the inland cities with the coastal route and the area north of Saigon. Additional roads are programmed, but meanwhile guerrilla activities have damaged existing roads or caused sections to be closed to traffic.¹⁴

The 1,337 kilometers of broad gauge, single track railroad include 1,109 kilometers of main lines and 228 kilometers of spur lines. One main trunk runs up the coast from Saigon to the demarcation line, and the other runs north from Saigon into the northern section of the delta. Spurs link a few inland cities. Little of the highlands or the delta is serviced by railroads. While improvement of

¹³"Viet Nam, Cambodia, Laos and Eastern Thailand" [a loose map], National Geographic Magazine, CXXVII (January 1965).

¹⁴U.S., The Department of Defense, pp. 119-120.

the system is programmed, guerrilla activity has resulted in sections of the railroad being closed.¹⁵

Inland waterways supplant roads and railroads in the delta. The Mekong and Bassac River waterways are supplemented and interconnected by 1,500 kilometers of primary and 1,000 kilometers of secondary canals. The dikes and levees associated with the canal system combine to serve as obstacles to surface movement throughout the delta.¹⁶

Over the years the difficulties of surface travel have resulted in the construction of a surprising number of airfields. There are about 25 all-weather airfields in South Vietnam, with the majority supporting the populated lowlands and delta and only 6 dispersed throughout the highlands. Seasonal airfields have been constructed at many large villages and hamlets. All-weather airfields are capable of supporting most Air Force and all Army aircraft year-round, and seasonal airfields permit unrestricted operation of Army aircraft except during the local rainy season, when surface conditions may restrict their use.¹⁷

South Vietnam's transportation system is inadequate

¹⁵U.S., The Department of Defense, pp. 120-121.

¹⁶U.S., The Department of Defense, pp. 122-123.

¹⁷U.S., The Department of Defense, p. 121.

to support large scale ground oriented operations with sophisticated equipment and is subject to surface interdiction by guerrillas, as adequately illustrated by conditions today. Extensive waterways in the delta tend to hinder cross-country operations. These conditions are discussed further at the end of this chapter.

The People

South Vietnam is an agrarian nation with 80 per cent of its nearly 16,000,000 people living in farm villages and hamlets. Including cities, 90 per cent of the people live on 13 per cent of the land. There are over 400 people per square kilometer in the intensely fertile areas along the Mekong and Bassec Rivers and in the northern half of the lowlands where rice is double cropped. In the extensive swamp lands of the delta and in the rugged and less fertile highlands the average population is less than twelve people per square kilometer.¹⁸

The population is 85 per cent Vietnamese, with minority groups of Chinese, Montagnards, Khmers, and Chams and lesser numbers of south Asians, Eurasians, Europeans. The Vietnamese are predominately skilled farmers and fishermen who live in the delta and lowlands. Others are employed

¹⁸U.S., Department of the Army, pp. 46-48.

in the cities and on the plantations. The Chinese minority of over one million is centered at Cho Lon and is a significant influence on the nation's commerce. It is estimated that between 500,000 and 700,000 Montagnards live in the central highlands, where they are isolated by their own language and distinct society. Small tribes, practicing shifting agriculture, move annually to rotate the nonfertile fields they cultivate. An estimated 400,000 Khmers and 40,000 Chams, both Cambodian ethnic groups, live and farm along the Cambodian border in the delta and southern part of the highlands. The remaining foreign groups are active in commerce and rubber plantations.¹⁹

Polluted water sources, a lack of sanitation facilities, and insects cause numerous, serious diseases. Dietary deficiencies within the population lower energy and reduce resistance to disease. Malaria, tuberculosis, trachoma, typhoid, dysentery, and intestinal parasites are widespread.²⁰ Although effective military hygienic practices protect American troops from most of these diseases, operations in areas where the anophele mosquitoes are uncontrolled will result in exposure to malaria.

¹⁹U.S., Department of the Army, pp. 46-48.

²⁰U.S., Department of the Army, pp. 177-181.

Attitudes of the people are born of Asian religions, customs, and traditions and have been influenced by the introduction of Western culture, modernization, and the realities of their extended war. The predominant religions are Buddhism, Confucianism, and Taoism, although dogma and practices have fused to form a purely Vietnamese religious philosophy. A legacy of French rule is the 10 per cent of the population which is Roman Catholic, including a large proportion of the educated elite. Especially strong family loyalties result from the extended family with its patriarchal head, mutual responsibilities, and reverence for and worship of ancestors. There is reluctance to leave one's birthplace. Education is revered and is being accelerated at all levels.²¹

An important aspect of the Vietnamese people is their adaptability to change. Compromise, rather than firm adherence to immutable principle, is admired. A proverb points out that "the supple bending reed survives storms which break the strong but unyielding oak."²² In fact, the dragon on the former coat of arms has been replaced with a

²¹U.S., Department of the Army, pp. 87-91, 113, & 127. Appreciating the importance of education, the Viet Cong have systematically eliminated teachers who oppose them.

²²U.S., Department of the Army, pp. 98-99.

bundle of bamboo reeds which represents the endurance of the adaptable Vietnamese in the face of all vicissitudes. "In Vietnam no position taken is irretrievable; no commitment is final."²³

The people play a vital role in counterinsurgency operations. The insurgent force relies on them. Their support and cooperation are both a goal and a necessity of counterinsurgency forces, and personnel of the airmobile division must know, understand, and be able to work with the Vietnamese. Effects of the population on counterinsurgency operations by the airmobile division are discussed later in this chapter.

Analysis of Military Aspects of the Area

Observation, both air and ground, varies seasonally with the weather and regionally with the terrain. Heavy rainstorms reduce observation in the delta and highlands between May and October and in the lowlands between October and March. Between November and March early morning ground fog throughout Vietnam and periods of crachin in the lowlands reduce observation. Otherwise skies are clear to partly cloudy and the absence of fog facilitates observation. Observation and fields of fire are interrupted by the

²³U.S., Department of the Army, pp. 98-99.

forested, rugged mountains of the highlands. The flat paddy land of the delta, the plateaus in the highlands, and the plains and paddy land of the lowlands provide good observation and fields of fire. Aerial observation is precluded by the continuous canopies of swamp forests in the delta and the primary and secondary broadleaf evergreen forests of the highlands. Ground observation and fields of fire are interrupted by these forests as well as by savannah grass growing on the highland plateaus. Rubber plantations, orchards, and cultivated areas offer good ground observation and fields of fire. All things considered, observation and fields of fire are seasonally good in the delta and lowlands and generally poor in the highlands.

Dissected relief of the highlands provides good cover and concealment; flat areas of the lowlands and the delta afford little. Swamp forests in the delta and primary and secondary broadleaf evergreen forests in the highlands provide good cover and concealment. Savannah grass and rice in season offer good concealment from ground observation, but no cover from either direct or indirect fires. Villages also offer concealment, but little protection from fires, especially artillery and aerial fire. Canals, dikes, and irrigation ditches in paddy land offer limited cover from ground fires, although the mud and standing water in rice

paddies and swamps reduce the lethal radius of exploding munitions. Seasonal heavy rain and early morning fog offer concealment. Generally, the highlands afford good cover and concealment, but the paddy lands of the delta and the lowlands afford poor cover and concealment.

Dissected relief in the highlands poses an obstacle to off-road mobility and slows cross-country foot movement. The Mekong and Bassec Rivers and multiple streams and canals are obstacles to all ground movement in the delta. Heavy tropical vegetation throughout Vietnam, from the swamp forests of the delta to the primary and secondary forests and savannah grass of the highlands, retards motor and foot movement. Forests are obstacles to aircraft landings, although shifting farming in the highlands has resulted in scattered small clearings suitable for helicopter landing sites. Surface conditions also reduce trafficability, from the delta swamps to the seasonally wet paddy land of the delta and the lowlands. Between May and October, the summer monsoon season, rains turn the soil of the highlands and the delta into deep mud. Movement off roads and trails is difficult everywhere in Vietnam. Helicopter landing sites are abundant in the paddy lands of the delta and the lowlands and on the plateaus of the highlands, but restricted in the forested mountains of the highlands and swamp forests of the

delta. Cross-country vehicle movement is generally impracticable inasmuch as it is retarded in the delta by swamps and seasonally by wet rice paddies, in the highlands by mountains, secondary forests, savannah grass, and mud, and in the lowlands by double cropped rice paddies and rugged, forested hills. Small unit movement by foot, although difficult, is possible in even the most impenetrable terrain.

Cities and villages must be considered as key terrain because control and support of their populations is the objective of both insurgent and friendly forces. When controlled by the insurgents they provide recruits, food, and intelligence necessary to guerrilla operations. When controlled by government forces these vital factors are denied the guerrilla, and the functions of government under law can be pursued. Intelligence provided by citizens and the moral support of the people are the cornerstones of successful counterinsurgency operations.

Airfields, roads, and trails are key terrain because they facilitate movement. Hill tops are key terrain because where vegetation permits they provide good observation and their difficult approaches generally favor defense by a small force. In areas where helicopter landing zones are limited small clearings must be considered as key terrain because of the dependence of airmobile operations on them.

Avenues of approach are ill-defined. The foot mobile guerrilla may approach his objective from any direction and will traverse the most difficult terrain to achieve surprise. He will use roads and trails, but any route with adequate vegetation for concealment must be considered an avenue of approach. The same considerations apply to foot mobile operations by the airmobile division, although their equipment and less intimate knowledge of the terrain will tend to slow their cross-country movement. An airmobile force can approach a landing zone from any direction, but the location and size of the landing zone may determine the size of the force that can be landed and the direction of its attack in closing with a located guerrilla force. Where landing zones are plentiful an airmobile force can approach its objective from one or several directions at the same time. However, forested, rugged mountains or the swamps, offering only restricted landing zones, will tend to limit the size of the airmobile force employed and confine selection of approaches to its objective.

The distance from a fixed wing landing zone at the brigade base to the battle area affects the capability of the air line of communications to sustain combat operations. In areas where rugged terrain or seasonal mud precludes fixed wing landings, especially in the highlands, the air

line of communications must be supported by helicopters diverted from combat operations. Operations which radiate from built-up areas are facilitated by better availability of helicopters to support combat operations. The scope and tempo of operations into remote areas lacking a suitable fixed wing landing zone, or a potential site, are curtailed by the increased demands on assault and assault support helicopters to support replenishment operations.

Aviation weather is generally excellent, with acceptable minimums for helicopter operations prevailing except during local rain, early morning fog, and crachin. Heavy rain showers are of limited duration, and fog, when present, normally burns off by noon. Airmobile operations are therefore possible during some part of nearly every day. During the fall, crachin and tornadoes in the lowlands are an exception to this. Low hanging clouds in the Chaine Annamitique during the summer monsoon also will restrict aviation operations at higher elevations. Since high temperature and high humidity combine to reduce the load capacity of all aircraft, the number of aircraft normally needed to lift a given size unit is increased. There are seasonal, limited periods when weather will prevent close air support, which requires higher minimums than airmobile operations. The air line of communications is restricted during those

hours when landings must be made by time-consuming ground controlled approaches. In spite of the exceptions described here, the climate of South Vietnam is generally suitable for the conduct of large scale airmobile operations.

Personnel are adversely affected by the sultry, debilitating climate and the diseases which range from dysentery to malaria. Special precautions are required to avoid excessive numbers of non-battle casualties. Acclimatization of personnel and the use of malarial prophylactics are standard. However, the tempo and scope of operations may be slowed by the requirement to rotate units from active combat to less intense duty to permit periodic rest and recuperation.

Distribution of supplies by ground vehicles is generally precluded due to the difficulty of cross-country movement and the vulnerability of supply convoys to ambush on roads and trails. Landing zones and drop zones sufficient for resupply operations are generally available. The climate causes special maintenance problems and complicates the storage and distribution of all classes of supply, especially fresh foods. Although too much water is the basic problem, most of it, like the ocean, is not potable. To prevent disease, water must be distributed from division water points, and during combat operations this must be done

by air. The exertion caused by combat in this sultry climate dictates the need for up to three gallons of drinking water per man per day.²⁴ Installation security is a continuing problem due to the nature of guerrilla warfare.

Civil affairs and civic action are an integral part of counterinsurgency operations. The immediate concern of a tactical unit is preventing civilian interference with combat operations and obtaining combat intelligence about the insurgent force. The long range goal is gaining the support of the people, and this presumes their lasting freedom from retaliation by guerrillas and continuing action by a government worthy of their respect and confidence. In the densely populated delta and lowlands it is difficult to separate the guerrilla from the civilian populace, especially when a guerrilla force is engaged in an area which has been under its effective control for some period of time. Preventing interference with military operations is easier in the highlands, which is sparsely populated mainly by the Montagnards. By propaganda and terror the insurgent force can extract combat intelligence from the local population and deny it to friendly forces. Only with tangible evidence of lasting

²⁴U.S., Department of the Army, Staff Officers' Field Manual: Organization, Technical, and Logistical Data, FM 101-10, Part I: Unclassified Data (Washington: U.S. Government Printing Office, 25 October 1961), p. 316.

security from retaliation will the civilian population dare to provide friendly forces with intelligence of insurgent force activities. Because this intelligence is so vital to counterinsurgency operations, and for more important long range reasons, every effort must be made to secure an area and its population once it is cleared of insurgent forces. Deprived of security and livelihood by the extended war, the civilian population is likely to shift allegiance like "the subtle reed before the wind" until one side or the other is clearly dominant. Being an American unit in a foreign country, the airmobile division will be greatly assisted by indigenous intelligence teams working with the population.²⁵ Combat operations will be further facilitated if the division is augmented with civil affairs and civic action teams to perform these huge, vital functions in support of the population. If the support of the people is not obtained, overcoming all the physical obstacles and defeating insurgent forces in the field will be to no avail.

Although large scale airmobile operations are feasible, the area of operations poses numerous difficulties to the airmobile division. The climate is debilitating to

²⁵ Personal letter from William Roll, Maj, Inf, S3, 1st Battalion, 12th Cavalry, 1st Cavalry Division (Airmobile), 21 January 1966.

personnel, and disease, especially malaria, threatens troops while on operations. Abundant cover and concealment compound the difficulty of locating the Viet Cong, and in guerilla controlled areas the people are reluctant to provide intelligence for fear of retribution. Limited landing zones and seasonal monsoons restrict helicopter operations. The terrain is an obstacle, even to foot movement in most areas. The abundance of cover and concealment forces close-in fighting and reduces the effectiveness of supporting fires. Additionally, the tropical climate has a deteriorating effect on equipment, and the resultant high density altitude reduces aircraft lift capability. The cover and concealment and passive-to-hostile civilian population compound security considerations. These effects accrue to any United States division, but the airmobile division is least affected because of its ability to move by air and free itself from most of the obstacles and limitations posed by the terrain.

South Vietnam's military geography presents serious problems that tend to limit the scope and tempo of the airmobile division operations. Insurgent forces have historically capitalized on such difficulties to inflict heavy losses and serious defeats on their more sophisticated enemies. The next chapter is a study of how the Viet Cong, in accordance with the insurgent doctrine of revolutionary

warfare, use the country and its people. The discussion is presented as the last prerequisite to analysis of the current concept for employment of the airmobile division in an underdeveloped country against an insurgent force.

CHAPTER IV

SUBVERSIVE INSURGENCY

The basic principle of war is to preserve oneself and to annihilate the enemy.¹

--Mao Tse-tung

There is war in Vietnam. The communist tide of subjugation of free people has flowed across the borders of South Vietnam, and her people are engaged in a crucial struggle. Freedom or tyranny will be the outcome. The United States, in its continued hope that out of the war will emerge freedom for the Vietnamese, is fully committed to the people of Vietnam. American forces are fighting in Vietnam for that purpose. The airmobile division is there, fighting against the Viet Cong and units of the Peoples Army of Vietnam, the invading forces from communist North Vietnam.

Analysis of the current concept for employment of the airmobile division against these forces must include an appreciation of how the insurgent forces fight and a

¹Mao Tse-tung, Selected Works, "Strategic Problems in Guerrilla War," in Vol. II: 1937-1938 (New York: International Publishers Co., Inc., 1954), p. 121.

determination of their strengths and weaknesses. This is the objective of this chapter.

It is generally accepted that this is a different kind of war. There are no frontlines, yet battles of regimental and division size are fought. It is not a repetition of World War II or Korea. It is neither a general war nor even a limited war, but it could be the fuze for World War III. Various names applied to this war by the U.S. Army include subversive insurgency, Phase III insurgency, war of movement, and insurgent war. The communists call it revolutionary war.

General de Gaulle once remarked, "I know of two types of warfare: mobile warfare and positional warfare. I have never heard of revolutionary warfare."² Subsequently France was defeated in two revolutionary wars, Indo-China and Algeria, although the French conducted successful operations in both. They lost because the wars were protracted, and because of their length the French economy, the will of the French people to pursue the wars, and adverse world opinion forced France to seek settlements and withdraw. These were colonial wars with objectives fundamentally different from those of the United States in support of the

² Bernard B. Fall, Street Without Joy (4th ed.; London: Pall Mall Press, 1965), p. 370.

people of Vietnam today. However, an important lesson is that in a protracted war an underdeveloped country can prevail against one of the world's most powerful nations.

In his thesis "On the Protracted War," Mao reasoned that in a short war the inferior force would surely be defeated. Therefore, the objective of the insurgent force must be to protract the war in order to wear down its physically stronger opponent while building its own strength. To do this he proposed a strategy of avoiding decisive battle except under the most favorable circumstances. Mao concluded that by continuing to resist, regardless of the sacrifice, the morally stronger insurgent will win in the protracted war.³

The thesis of the protracted war has been adopted by Ho Chi Minh and his followers. The strategy and tactics of Mao Tse-tung and Ho Chi Minh will be discussed next, but first the findings of the International Control Commission of the Geneva Convention are cited as evidence of communist North Vietnam's direction and support of subversive insurgency to subjugate the free people of South Vietnam.

. . . armed and unarmed personnel, arms, munitions and other supplies have been sent from the Zone in the North to the Zone in the South with the object of supporting,

³Mao Tse-tung, "On the Protracted War," in Vol. II, pp. 157-170.

organizing and carrying out hostile activities, including armed attacks, directed against the Armed Forces and Administration of the Zone in the South.⁴

Insurgent Doctrine

Ho Chi Minh said of his war against the French, "For every ten of our force killed, we will kill one of yours and we will eventually win."⁵ There is no more succinct description of a protracted war. But Ho Chi Minh is a political leader; what of his generals?

Mao's influence over General Vo Nguyen Giap, North Vietnam's Deputy Premier and Defense Minister, is reflected in People's War, People's Army, in which General Giap explains the victory of the Viet Minh over the French by paraphrasing the strategy and tactics expounded by Mao.⁶ The same philosophy dominates General Giap's thinking today and is evident in the following excerpt from a recent

⁴U.S., Department of State, Aggression from the North: The Record of North Viet-Nam's Campaign To Conquer South Viet-Nam, Publication 7839 (Far Eastern Series 130; Washington: U.S. Government Printing Office, 1965), p. 30, quoting a report of the International Control Commission, Geneva Convention, 2 June 1962.

⁵U.S. Army Command and General Staff College, "Patterns of Communist Aggression," Subject A1810 (Fort Leavenworth, Kans.: The Command and General Staff College, 13 September 1965), app 1 to adv sheet, p. 21.

⁶Vo Nguyen Giap, General [Commander-in-Chief, Viet Nam People's Army], People's War, People's Army [a translation] (Washington: U.S. Government Printing Office, 1962).

article by him.

. . . a new development of the revolutionary military art . . . is to rely mostly on man, on his patriotism and revolutionary spirit, to bring all weapons and techniques available to defeat an enemy with modern weapons and equipment. [Parallels Mao's premise for revolutionary warfare.]

The U. S. expeditionary corps, deprived of an ideal to fight for, is possessed of a low morale . . . it has to cope with a people's war. Its strategy and tactics based on the bourgeois military outlook are of no use. [Parallels Mao's conclusion.]

Though they [the United States] may bring in hundreds of thousands of troops, they cannot avoid being driven into passivity in strategy, compelled to scatter their forces in the defensive as well as in the offensive, and cannot easily wrest back the initiative. [Parallels one of Mao's five mistakes an "imperialist" force makes to secure a hostile population: "dispersion of his main forces."]⁷

Perhaps the best writing on protracted war by the leadership of the Democratic Republic of Vietnam is Truong Chinh's "The Resistance Will Win," which is included in his Primer for Revolt.⁸ Chinh, who is currently the president of the North Vietnamese legislature, published the primer, which deals with the communist takeover in Viet Nam, in 1947 to guide the Viet Minh in their war against the French. It borrows heavily from Mao's "On the Protracted War,"

⁷"Operation Masher: The War Goes On," Life (11 February 1966), p. 24B, quoting General Giap; and Mao Tse-tung, "On the Protracted War."

⁸Truong Chinh, "The Resistance Will Win," in Primer for Revolt: The Communist Takeover in Viet-Nam (New York: Frederick A. Praeger, Publisher, 1963).

expounding the same ideas in the same sequence.

It may be concluded that the struggle in South Vietnam is controlled from North Vietnam and that the communist practitioners of this subversive insurgency are students of Mao Tse-tung. Insight into the strategy and tactics of the Viet Cong and the Peoples Army of Vietnam may be gained by examining the insurgent doctrine of Mao and Chirh. A thorough examination of protracted war would be a thesis in itself; however, in the space allotted here sufficient understanding of insurgent doctrine can be developed to permit analysis of the current concept for employment of the airmobile division in counterinsurgency operations.

Mao Tse-tung described the sixteen-word slogan that follows as the best and basic principle of insurgent warfare.

Enemy advances, we retreat;
 Enemy halts, we harass;
 Enemy tires, we attack;
 Enemy retreats, we pursue.⁹

Stated differently this slogan directs that when the enemy is stronger and is exercising the initiative, the insurgent will avoid battle. When the enemy defends and sacrifices initiative in the field in order to secure the area, the insurgent will take up the initiative and strike weak points

⁹ Mao Tse-tung, "Problems of China's Revolutionary War," in Vol. I: 1926-1936, p. 212.

in order to sap the strength of his stronger opponent. When the enemy is made confused and weary, has lost his morale, and has frittered away his strength, the then-stronger guerrilla will convert to mobile warfare and attacks. Finally, the beaten enemy will be annihilated.

In the lexicon of the insurgent there are three types of warfare: positional warfare, guerrilla warfare, and mobile warfare. Positional warfare involves frontlines and the siege of cities and has as its objective the wearing down of the enemy. Guerrilla warfare is at the other end of the spectrum and involves ambush and the seizure of weakly defended points with the objective of wearing down and annihilating the enemy. Mobile warfare is in the middle of the spectrum, analogous to but on a larger scale than guerrilla warfare, and has the sole objective of annihilating enemy forces.¹⁰ These three types of warfare may be carried on at the same time. That is, mobile warfare may be supplemented by positional and guerrilla warfare.¹¹ This is essentially the situation in Vietnam today and will be discussed later.

"Wearing down" and "annihilation" as used above are the objectives of different types of warfare. Wearing down

¹⁰Truong Chinh, pp. 152-154 & 183.

¹¹Mao Tse-tung, "Protracted War," II, 224-225.

is now sapping the enemy of his physical strength while the insurgent builds his own strength with captured equipment and material. With respect to annihilation, Mao has repudiated attrition and has said: "To wound all the ten fingers of a man is not so effective as to chop one of them off; to rout ten of the enemy's divisions is not so effective as to annihilate one of them"¹²

Mao frequently exhorted his commanders with these orders:

Make wiping out the enemy's strength our main Objective . . .

In every battle, concentrate an absolutely superior force (two, three, four and sometimes even five or six times the enemy's strength), encircle the enemy forces completely, strive to wipe them out thoroughly and do not let any escape from the net. . . . Strive to avoid battles of attrition in which we lose more than we gain or break even.¹³

Basic directives established by Mao for his forces were adopted and expanded for the Viet Minh by Truong Chinh. In regard to initiative, flexibility, and planning, Chinh wrote:

To keep the initiative is the essential principle of tactics in general, and of guerrilla and mobile warfare in particular. . . .

To lure the enemy . . . into a trap . . . worry him on the left before attacking suddenly on the right . . .

¹² Mao Tse-tung, "China's Revolutionary War," I, 252.

¹³ Mao Tse-tung, "Present Situation and Our Tasks," in Vol. V: 1945-1949 [n.d.], p. 161.

. . . attack the enemy's exposed and weak points in order to make it impossible for him to defend himself.
 . . . When the enemy moves, we lay in ambush to attack him. . . .
 . . . wage guerrilla warfare everywhere in order to scatter and wear down the enemy, and to enable our regular forces to launch sudden attacks to annihilate him in determined positions.
 . . . move skillfully . . . attacking important points, with a view to obliging the enemy troops to regroup, thus upsetting their predetermined battle plan.
 . . . clearly know the enemy's situation in order to be able to concentrate our regular troops rapidly and move our reserve forces swiftly to the required areas to act in good time.
 . . . centralize the leadership in the hands of higher command. But the local commands must act according to the situation at the front, and must fight according to their own initiative in order not to miss good opportunities.¹⁴

Concerning offensives in a defensive war and battles of quick decision in a protracted war, Chinh wrote:

Our strategy is to protract the war; therefore, in tactics, we should avoid unfavourable fights to the death, because we must maintain our forces. . . . We must bear in mind that . . . our strategy is defense, but our tactics are those of constant attack. . . . In strategy, the war must be prolonged, but in tactics, lightning attacks must be launched and rapid decisions won.¹⁵

To achieve battles of quick decision in a protracted war, Chinh directed:

Make careful inquiries into the enemy's position, his forces, his weapons, his morale, the character of the commander, etc., with a view to drawing up a detailed plan, and then secretly make careful preparations . . .

Concentrate forces superior to those of the enemy

¹⁴Chinh, pp. 185-187.

¹⁵Chinh, pp. 180-181.

and such as will enable us to annihilate him in one battle. . . .

The troops must be divided for the advance and regroup to attack, encircle, work around the enemy positions and finally take them by storm . . .

We should concentrate our forces to defeat the enemy at one point in a sudden attack . . .

Launch lightening, surprise attacks availing ourselves of moments when the enemy is off his guard . . .

Hold any position taken in an attack, or, if we do not intend to hold it, retreat immediately in order to preserve our forces for new battles . . .

Make full and thorough use of the victorious attack to enhance the prestige of our troop and the morale of our whole army and people.¹⁶

Mao described his war as the people's war. His strength is the support of the people, a fact which Chinh appreciates.

Guerrilla warfare must be the tactic of the people as a whole, not of the army alone.

To achieve good results in guerrilla and mobile warfare, we must mobilize the people to support our armed forces enthusiastically and to fight the enemy together with them. The people are the eyes and ears of the army, they feed and keep our soldiers. It is they who help the army in sabotage and in battle. The people are the water and our army the fish. The people constitute an inexhaustible source of strength to the army. To increase their numbers, the troops must recruit new fighters from among the people.¹⁷

Chinh discussed base areas as follows:

A resistance base is an area in which it is safe for us to train our regular army, train cadres, produce arms and munitions, tend our wounded, etc.

There are many kinds of bases: mountainous areas, in delta and in marshy areas . . .

When we occupy a place, we must have always in mind the moment when we may have to leave it. When we defend

¹⁶ Chinh, pp. 184-185.

¹⁷ Chinh, pp. 116-117.

a place, we must always have in mind the moment when we may have to abandon it. . . .
 . . . we should conceal military objectives, and endeavor to prevent enemy planes from causing us harm . . .

Concerning security, we should wipe out traitors to the nation, restrict and control the circulation of persons, and deprive the enemy of all news.¹⁸

It is evident from the Viet Cong "Five-Point Field Order" below that they are fighting today along the familiar lines of the Viet Minh.

SLOW and meticulous attack preparations and rehearsals;
 FAST close in with the enemy and attack;
 FAST and determined destruction of enemy resistance;
 FAST mopping-up of the battle area (arms, prisoners, own casualties);
 FAST withdrawal to base areas.¹⁹

In summary, insurgent doctrine calls for initiative, flexibility, and planning to carry out offensives in a defensive war and battles of quick decision in a protracted war. The objective of the insurgent is the wearing down and annihilation of the enemy by sudden attack, though avoiding battle except under the most favorable conditions. Mobile warfare is analogous to but on a larger scale than guerrilla warfare.²⁰ The people are encouraged by propaganda to give

¹⁸Chinh, pp. 188-190.

¹⁹Bernard B. Fall, The Two Viet-Nams: A Political and Military Analysis (rev. ed.; New York: Frederick A. Praeger, Publishers, 1964), p. 367.

²⁰Chinh, p. 146. Both Mao and Chinh described the protracted revolutionary war in three phases. The first

their sons, their rice, and their moral support. Traitors to the nation are "wiped out."

Mobile Warfare

Insurgency in South Vietnam has advanced to a state of mobile warfare with both sides employing regimental and division size forces. It is a free wheeling war with the Viet Cong and PAVN (Peoples Army of Vietnam) attacking outposts and ambushing relief columns, and the ARVN (Army of Vietnam) and allied forces endeavoring to trap and destroy insurgent units. At the same time the political and propaganda cadres and district and village level guerrilla forces continue to operate, to control the peasants, and to extend Viet Cong influence over the countryside and population. These elements blend into the population when threatened but continue as an effective force. Guerrilla warfare supports mobile warfare by harassing the ARVN and allied forces, developing intelligence, enforcing counterintelligence, and sustaining regular forces with food and recruits.²¹

phase is contention (characterized by mobile warfare, supplemented with guerrilla warfare and positional warfare). The second phase is equilibrium (characterized by guerrilla warfare, supplemented by mobile warfare and positional warfare). The third phase is the general counteroffensive (characterized by a return to mobile warfare, supplemented by positional warfare and guerrilla warfare).

²¹Chinh, p. 146.

In June of 1965 the town of Don Xoai, north of Saigon, was attacked by an estimated two regiments of Viet Cong. The besieged defenders radioed for help. Surface relief columns were ambushed and suffered heavy casualties. An ARVN battalion helicoptered to Don Xoai but was ambushed and annihilated on landing. Another force landed later in an undefended landing zone; the relief column fought its way through; and the siege was lifted. The Viet Cong broke contact and withdrew without being pursued.²² In this action the enemy had the initiative, fought a battle of annihilation, and withdrew intact upon the arrival of friendly reinforcements. Siege is positional warfare and supports mobile warfare. The insurgent's greatest gains accrue from the large scale ambushes characteristic of mobile warfare.

A PAVN force attacked the village of Plei Me, south of Pleiku, in October of 1965. Again relief columns were dispatched and again they were ambushed. For seven days, artillery and close air support enabled the defenders to withstand the siege until an airmobile force arrived and a ground relief column fought its way through. This time the PAVN were pursued to their base area in the Ia Drang River

²²New York Times, 10 June 1965, p. 1; 11 June 1965, pp. 1 & 3-4; 12 June 1965, p. 2; 13 June 1965, p. 1; 14 June 1965, p. 1; and 15 June 1965, p. 1.

valley near the Cambodian border, where they elected to fight. Having lost the initiative by the unexpected pursuit, the PAVN were forced to defend a well supplied base area until it could be evacuated. They conducted a series of determined counterattacks that were repulsed by United States firepower and close combat. Heavy casualties were sustained by both sides, but the toll was nearly ten to one against the PAVN.²³ In this action the enemy violated insurgent doctrine twice, and his mistakes proved costly. First, the base was not mobile, forcing its defense when withdrawal might have been the better choice. Then, having lost the initiative and fighting with improvisation instead of exhaustive preparation, he underestimated the ability of the American fighting men and the effectiveness of their firepower, and he pressed for a battle of annihilation for the propaganda and morale value. For the insurgents Plei Me was as successful as Don Xoai, but their pitched battle at Ia Drang was a costly gamble and a rather incompetent shift to positional warfare.

"Operation Harvest Moon," conducted by ARVN units

²³ Ibid., 20 October 1965, p. 3; 21 October 1965, p. 1; 22 October 1965, p. 6; 23 October 1965, p. 3; 24 October 1965, pp. 1 & 3; 25 October 1965, p. 1; 26 October 1965, p. 2; 27 October 1965, p. 1; 9 November 1965, p. 1; 16 November 1965, p. 1; 17 November 1965, p. 1; 20 November 1965, p. 1; and 21 November 1965, p. IV-1.

and U.S. Marine units north of Qui Nhon in December of 1965, was more characteristic of mobile warfare. An estimated Viet Cong regiment was engaged. It defended initially, then delayed, and withdrew into the rugged mountains of the highlands when threatened with encirclement by an airmobile envelopment. Both sides suffered casualties, but the enemy force was able to withdraw intact to fight again.²⁴ This action illustrates the principle of mobile warfare in which the insurgent force avoids a battle against a superior force which has the initiative.

In January of 1966 a large helicopter and land assault was launched against an enemy division size base area in the Ho Bo Forest, north of Saigon. There was sporadic fighting, but by the time the main force arrived the area had been deserted. The enemy must have left this area reluctantly, because it contained extensive fortifications, tunnels, and provisions for classrooms, hospitals, and supply stores. Yet he left it rather than risk destruction of his force.²⁵ The enemy withdrew intact and avoided an unfavorable battle because he was prepared to move his base

²⁴Ibid., 9 December 1965, p. 24; 12 December 1965, p. 1; 13 December 1965, p. 1; and 14 December 1965, p. 1.

²⁵Ibid., 9 January 1966, p. 1; 10 January 1966, p. 3; and 11 January 1966, p. 3.

if and when it was strongly attacked. This action is an example of mobile warfare, although the insurgents might have been expected to delay long enough to inflict some casualties on their attackers. A hasty withdrawal is justified, however, if there is danger of encirclement or if the tunnel escape routes are in danger of being cut off.

In January of 1966 "Operation Masher" was launched north of Qui Nhon, where "Harvest Moon" had been conducted six weeks before by the 1st Cavalry Division (Airmobile), U.S. Marine units, and ARVN units. The objective was to trap and destroy two Viet Cong and two PAVN regiments. The insurgent force defended and suffered heavy casualties, but before the trap could be closed, it broke contact and escaped into the forested, rugged mountains of the highlands.²⁶ The fight was carried to the enemy in his base and he was forced to go on with the fight until he could find a route of escape, again illustrating mobile warfare in which an inferior enemy force was nearly encircled but escaped before being annihilated. It demonstrated again the basic insurgent doctrine--simply, to fight when he can win and to run when he cannot. A massive allied effort had been

²⁶Ibid., 28 January 1966, p. 12; 29 January 1966, p. 2; 30 January 1966, p. 1; 31 January 1966, pp. 1 & 8; 1 February 1966, p. 1; 2 February 1966, pp. 1 & 15; 7 February 1966, p. 6; and 8 February 1966, p. 13.

mounted, one which would have overwhelmed the inferior insurgent force in a conventional battle. But in mobile warfare in the rugged, forested hills of Vietnam, when the allied force closed the trap the valley was deserted.

Some conclusions about the tactics of the Viet Cong and the PAVN can be formed from an examination of insurgent doctrine and recent actions of the war in Vietnam.

Insurgent forces can attack with any force from one guerrilla in ambush to two regiments supported by artillery. In the conduct of mobile warfare they will probably continue to attack lightly defended places, especially hamlets, the seizure of which offers a propaganda value. In accordance with their doctrine, insurgent forces can be expected to lay ambushes for relief columns hastily dispatched in reaction to their well prepared attacks. During the monsoon season, when the mobility and firepower advantages are reduced, insurgents will probably increase their attacks with the objective of annihilating isolated forces for the propaganda advantage. It is unlikely that they will endeavor to lay siege to a strongly defended area, or to engage forces of brigade or stronger size.

Although the enemy can defend with any force from a guerrilla company up to two regiments supported by artillery, he is unlikely to defend any area except to cover the

evacuation of a base area, or unless encircled and forced to fight. If forced to defend, he will probably endeavor to inflict maximum casualties and then withdraw under cover of darkness into more favorable terrain. The defense belongs to positional warfare, which plays a supporting role in mobile warfare.

Insurgents will normally delay under three circumstances. One is when they are engaged by a superior force and are unable break contact. To prevent encirclement they will delay until darkness or the character of the terrain permits them to break contact and withdraw. The second situation is when they are conducting a decoy operation to entrap a force. In this role a unit might delay while moving to favorable terrain where a larger unit waits in ambush for the purpose of encircling and annihilating a pursuing force. The third situation is one in which a large insurgent force is threatened with encirclement by a number of converging columns. Small forces will attempt to delay several of these columns while the main force masses in an attempt to encircle and annihilate one of the converging columns. The delay is more suited to mobile warfare than to the defense.

The Viet Cong and PAVN will attempt to withdraw when faced by a superior enemy force. A precept of protracted

insurgent warfare is the avoidance of battle when the odds are against the insurgent. This principle applies to guerilla warfare and to mobile warfare.

Guerrilla warfare will be actively pursued to isolate a selected battle area and to disrupt and distract counterinsurgency forces. Surface lines of communications are excellent guerrilla objectives. Guerrilla action also supports mobile warfare by making a "noise in the east before an attac in the west."

The insurgent forces employ rifles, light and heavy machine guns, mortars, and cannon artillery as anti-aircraft fire. They have developed an off-set sight for the machine gun, and they conduct intensive training in procedures for developing an accurate lead on a flying aircraft. Although some helicopters are hit by ground fire, few are knocked down. Better results are achieved in landing zones where machine gun fire or indirect mortar fire may be pre-planned and delivered when a flight of helicopters is in the landing zone.²⁷ This last technique underlines the need for suppressive fires and reconnaissance of landing zones prior to and during the landing of large helicopter formations.

²⁷ U.S., Department of State, p. 53; and personal letter from William Roll, Maj, Inf, S3, 1st Battalion, 12th Cavalry, 1st Cavalry Division (Airmobile), 21 January 1966.

The Enemy

Opposing forces in mobile warfare are employed in a jigsaw pattern (see Plate XII). Each side has strongholds from which its influence radiates. ARVN and United States strongholds are generally well defended base camps, whereas insurgent strongholds are mobile bases in difficult terrain.

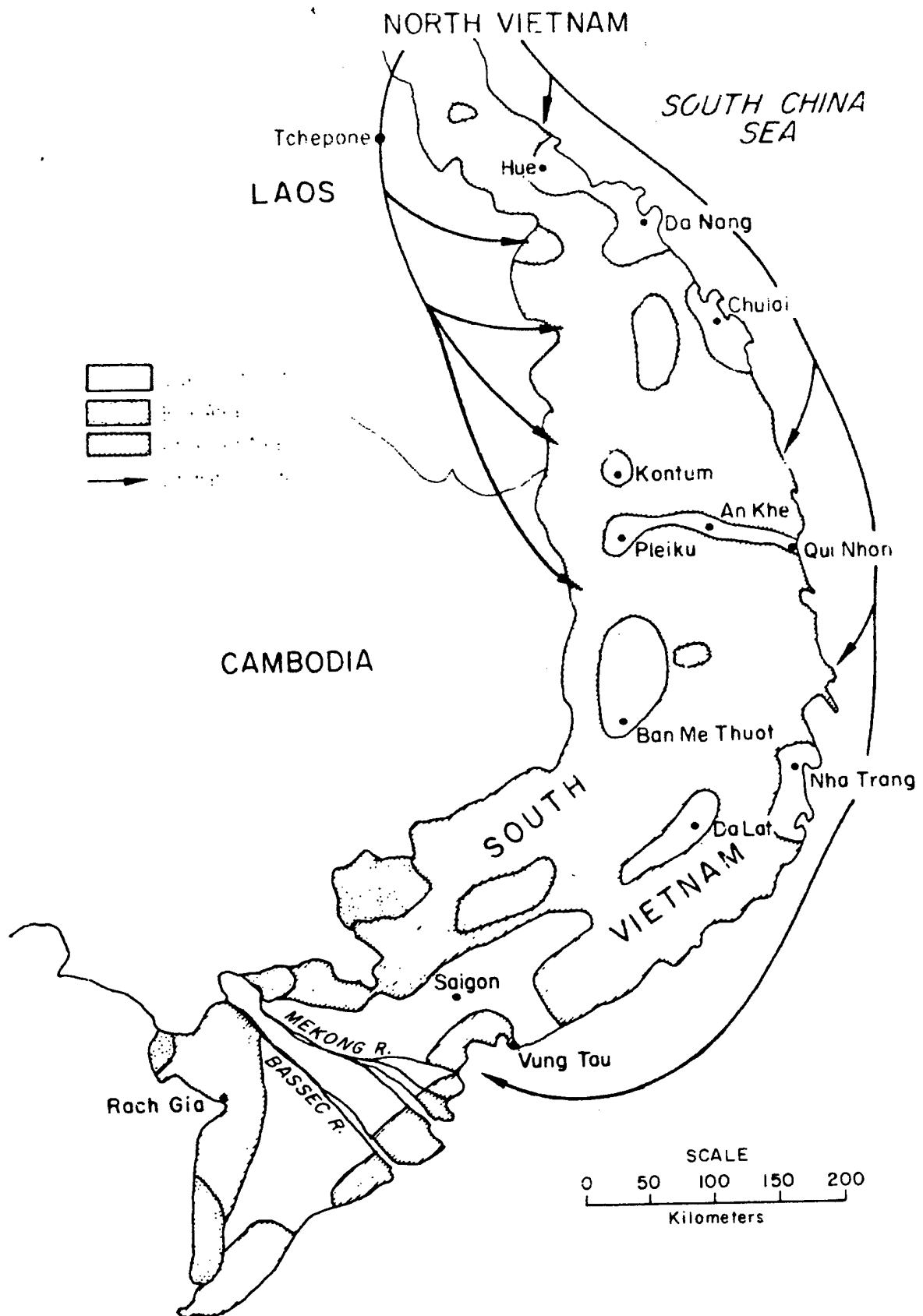
The importance of the delta is in its people and its rice. The Viet Cong demonstrate appreciation of this fact in their dispositions along the Cambodian border and in the coastal swamps from which they extend their influence over the delta's wealthy plains. From base areas in the rugged, forested hills of the lowlands the influence of the insurgent is extended over the fertile river plains by propaganda, terror, and guerrilla raids. They have interrupted traffic over South Vietnam's arterial highways and railroad running through the lowlands, by blowing bridges, ambushing convoys, and eluding even large scale operations designed to locate and destroy them. The rugged hills of the highlands, contiguous to the Laos and Cambodian borders, form a natural base area for the insurgents. Though infertile and sparsely populated, it is from these highland strongholds that the insurgent extends influence over the rest of South Vietnam.

Although the figures change constantly, some idea of the strength of insurgent forces may be gained from recent

PLATE XII

ENEMY BASES AND INFLUENCED AREAS

Sources: U.S., Department of State, Aggression from the North: The Record of North Viet-Nam's Campaign To Conquer South Viet-Nam, Publication 7839 (Far Eastern Series 103; Washington: U.S. Government Printing Office, 1965), p. 1; and "South Vietnam: A New Kind of War," Time Magazine, LXXXVI, No. 17 (22 October 1965), 29.



estimates. In January of 1966 PAVN strength was estimated to be 9 regiments, each with 2 or more battalions of 500 men per battalion. The main force of the Viet Cong in June of 1965 was estimated to number 65,000 guerrillas who were armed, equipped, and rigorously trained. Both these forces employ light infantry weapons and are supported by limited mortar and artillery fire.²⁸

Some 80,000 to 100,000 part-time guerrillas "mix" insurgency with arming. Working in their native villages and districts, these guerrillas provide intelligence and a ready pool of replacements to the main force Viet Cong units.²⁹

An estimated 30,000 political and propaganda cadre-men operate in South Vietnam. Infiltrated from the north to win the minds of the people, they educate, propagandize, and recruit for the Viet Cong. Cadremen are the hard core communists who motivate the guerrilla and influence the peasant. Although their numbers are small and they may or may not bear arms, they leave no stone unturned in providing continuing

²⁸ New York Times, 17 June 1965, p. 1, quoting Robert S. McNamara, Secretary of Defense, U.S. Department of Defense; "Operation Masher," Life, 24B; and U.S., Department of State, p. 23.

²⁹ New York Times, 17 June 1965, p. 1, quoting McNamara; and U.S., Department of State, pp. 22-24.

spark to the insurgency effort.³⁰

The insurgent forces are reinforced by infiltration from the north at an estimated rate of 4,500 men per month. Arms and equipment flow down the Ho Chi Minh trail. While this is considered to be the primary source of resupply, the enemy still relies on captured personnel, arms, and supplies. When main force Viet Cong units suffer casualties, their replacements are obtained locally by elevating part-time guerrillas from the ranks of district and village forces.³¹

Strengths and Weaknesses

By the standards of conventional warfare insurgents are an inferior force, short in numbers and poorly equipped. But the Viet Cong and PAVN have no intention of fighting on the terms of superior conventional forces. Instead, they have devised tactics to protract the war to sap their enemy's strength while building their own. Exhaustive preparation for a quick, decisive battle is their offensive technique; moving to hide in difficult terrain is their defensive technique. Neither can be accomplished without

³⁰ New York Times, 17 June 1965, p. 1, quoting McNamara; and U.S., Department of State, pp. 22-24.

³¹ New York Times, 17 June 1965, p. 1, quoting McNamara; and U.S., Department of State, p. 24.

support from the people.

Insurgents are rigorously trained from the lessons learned in nearly a quarter century of war in Vietnam. They have superior knowledge of the terrain and they use it expertly. Foot mobility in difficult terrain, one of their main strengths, enables them to approach an objective from any direction and then to withdraw and disappear.

The Viet Cong have excellent intelligence and counterintelligence. Where they have the support of the people they have a thousand eyes to watch and report on activities of the friendly forces. By blending with the peasants to reconnoiter and by making slow, careful preparations, the Viet Cong can develop detailed knowledge to support their attacks. Likewise, the people and part-time guerrillas provide early warning of the advance of friendly forces. Moreover, the peasants are reluctant to provide information of guerrilla activities to friendly forces. Security is enhanced by sentries posted in depth around base areas. The insurgents, past masters at camouflage, light and noise discipline, and movement by stealth, are able to conceal even large forces.

In the personnel area the insurgents have several strengths. Replacements are locally available by drawing on the part-time guerrillas. A stream of some 4,500 infiltrate

from North Vietnam, each month and includes new units and trained replacements for existing units. Communists are careful to bolster the morale of their soldiers through propaganda, because those who believe they are fighting a people's war against American imperialists and their lackies are willing to endure great hardships for this cause. In the communist theory of the protracted war the moral strength of the army and the people will prevail, and every effort is made by education and propaganda to maintain that moral strength.

Logistically, the fact that insurgent forces can exist with minimal support is a source of strength. Some weapons, ammunition, mines, and explosives are provided by North Vietnam. Additional weaponry is obtained by sweeping the battlefields at every opportunity to recover anything that might be of military value and by converting bamboo spikes to booby traps and obstacles. Food is locally procured. Hospitalization facilities and medical treatment are meager. The guerrilla is accustomed to short rations, the climate, the local water, and disease. He lives by a fortitude that overcomes difficulties.

It must be conceded that the enemy has the support of large portions of the civil population. This support is the result of propaganda, terror, and guerrilla raids and is

grudgingly given by peasants who seem to want only to be left in peace to live and farm. A deliberate campaign to kill or kidnap teachers, village chiefs, doctors, and government administrators has gone a long way to eliminate opposition leadership. Supporters of the government are termed reactionaries--enemies of the people or lackies of the imperialists. Communist doctrine is to eliminate them to bring about a true democracy of the people. There is resentment of the Viet Cong, but real and lasting security must be provided before the people dare open resistance.

The area of operations favors the Viet Cong and PAVN forces in their conduct of insurgent warfare. Proximity to North Vietnam, Laos, and Cambodia, plus the concealed routes from each of these countries through the rugged highlands, facilitate outside support of the insurgent forces. Rugged terrain and dense vegetation provide flexibility in the selection of base areas and facilitate breaking contact when pursued. Restricted routes make it possible to isolate large parts of the country by interdicting only a few roads or trails. The population gives active and passive support to the insurgents. Success in protracted war is premised on the support of the people and their continued resistance to the government forces. This support affords the insurgent political as well as military advantages that could be

decisive in a protracted war.

Weaknesses of the insurgent forces may be considered in three parts. First, their popular support is based on propaganda, terror, and dissatisfaction with the government. This support can be destroyed by demonstrating the lies in the propaganda themes, by providing real and lasting protection from reprisals against the people, and by government institution of popular social and economic programs. These measures are beyond the capability of the airmobile division, but it can participate in these overall programs, especially in the area of providing continuous security for the people.

The second part of the weaknesses is that insurgent logistics are dependent on outside support and captured material. Interdiction of outside support and denial of arms and ammunition require coordinated efforts by government, ARVN, and allied units. These efforts can effectively utilize the airmobile division.

Finally, the insurgents are limited to foot mobility, have limited firepower, and, because of inferior signal communications, may have difficulty in coordinating fast moving operations in which they do not have the initiative. The airmobile division has the capability to exploit each area of the third part of weaknesses of insurgent forces.

The war in Vietnam is subversive insurgency, and the objective of the insurgent force is to protract the war by fighting only battles of quick decision in which it has superior forces and avoiding all others. The Viet Cong and the PAVN are masters of mobile warfare, capitalizing on the local population, the terrain, and their own moral courage to sustain themselves.

In counterinsurgency operations the airmobile division must first find an insurgent force, fix it, and then destroy it. The insurgents are excellent at concealing their locations, movements, and strengths, thus making the task of locating them difficult. They can move rapidly in any direction through Vietnam's difficult terrain and heavy forests, which enables them to elude destruction by disappearing. Speed in closing with insurgents by utilizing air mobile forces should assist in preventing their escape. Insurgent excellence in ambush, however, makes hasty operations hazardous. That and their firepower make the assumption of risks for the sake of speed a dangerous practice. These problems are pursued in the next chapter by analysis of the current concept for employment of the airmobile division against insurgent forces.

CHAPTER V

ANALYSIS OF THE CURRENT CONCEPT

At times, airmobile operations permit greater gains which often are accompanied by greater risks . . .¹

--Lieutenant General C. W. G. Rich
Test Director, Project TEAM

Insurgent forces do not employ the guerrilla warfare and mobile warfare of the protracted war by choice, but rather because their inferior combat power demands that they seek every advantage of geography. Considering relative combat power, the airmobile division has, or can call on, overwhelming firepower, greater mobility, better communications, and more sophisticated means for reconnaissance and surveillance. Appreciating this, insurgent forces prefer to engage in battles of their own choosing, in which, on their initiative and with superior forces, they can gain a quick decisive victory. To destroy insurgent forces the airmobile division must first find them and then hold them in place so

¹U.S. Army Test, Evaluation and Control Group, Project TEAM [Test, Evaluation Air Mobility], Field Test Program: Army Air Mobility Concept, Vol. I: Basic Report (Fort Benning, Ga.: U.S. Army Combat Developments Command, 15 January 1965), p. 8.

that its superior combat power can be brought to bear. But, lest the hunter becomes the hunted, the airmobile division must be wary of a carefully laid ambush, for while the insurgent has less combat power, he is dedicated, well trained, and armed well enough to give a good account of himself.

The airmobile division evolved from the air assault division. When the 1st Cavalry Division (Airmobile) came into being in July of 1965, its employment was guided by years of development and testing of a concept--the air assault concept. The first part of this chapter is a discussion of the air assault concept for employment of airmobile forces as it applies to counterinsurgency operations in an underdeveloped area. The concept will then be analyzed in terms of the capabilities and limitations of the airmobile division, the effects of the area of operations, and the strengths and weaknesses of the insurgents.

The Air Assault Concept

The air assault concept envisions an airmobile task force selecting an inferior force, bringing it under fire, rapidly attacking it by landing close by for followup assault on foot. The concept is described as follows:

Airmobile operations exploit the close tactical integration of troop lift and supporting fires applied with

precision and speed over extended distances and terrain obstacles to achieve tactical surprise. The integration of maneuver, firepower, control, intelligence and support is maximized to introduce airmobile forces directly into a landing area in close proximity to the defended area for follow-up assault on foot. . . . Protection of forces during the approach, landing, tactical maneuver, reinforcement, and withdrawal is provided by closely integrating the fires of ground and aerial fire support elements with the close air support provided by the Air Force.²

Study of this description reveals three significant aspects of the air assault concept. First, tactical surprise is sought in engaging the enemy because that tends to increase the combat power advantage of an airmobile task force. Second, there is mutual dependence between maneuver, firepower, control, intelligence, and support. Therefore limitations in any of these areas, intelligence in particular, will adversely affect airmobile operations. Third, airmobile forces land directly on an undefended objective area or in the close proximity of a defended area.

In the air assault concept increased maneuver capability and tactical surprise are considered to permit less dependence upon heavy sustained ground fire.³ Airmobile operations are feasible with reduced sustained ground fire

²U.S. Army Combat Developments Command, The Division (Air Assault Division Supplement), ST 61-100-1 (Fort Belvoir, Va.: Combat Developments Command, 25 June 1964), p. 4-1.

³Ibid.

so long as the airmobile force can envelop both the bulk of the enemy's obstacles and prepared fire and can attack from flank or rear. Tactical surprise tends to reduce the need for preparatory fire. It is to be understood that the aerial fire support of aerial rocket artillery, aerial gun ships, and close air support are available to the airmobile force.

In the air assault concept airmobile forces orient either directly on a located enemy force to destroy him or indirectly by securing terrain that will block enemy movement.

Airmobile forces operate relatively free of the terrain influences that restrict surface operations. Operations are carried out to locate and destroy enemy forces and installations or to seize terrain objectives and to prevent enemy withdrawal, reinforcement, supply, or the shifting of reserves.⁴

Actions are undertaken to locate enemy forces and to determine their weaknesses. "Intelligence for airmobile operations is characterized by . . . heavy reliance upon aerial collection means [although] . . . the necessity for ground reconnaissance is not eliminated."⁵

When the enemy is located he is fixed by means of firepower and mobility of aerial weapons systems that are rapidly brought to bear in an effort to limit his maneuver.

⁴Ibid.

⁵Ibid., pp. 4-1 & 4-2.

Infantry units are then landed in his close proximity to destroy him by close combat. The infantry assault is supported by surface and aerial fires.⁶

The following description gives a succinct picture of the air assault concept for the employment of an airmobile task force:

Airmobile operations are characterized by rapid execution and timely withdrawal based upon detailed prior planning. Rapid execution of successive operations enables airmobile forces to seize and maintain the initiative, to utilize local tactical surprise and to avoid becoming engaged by superior hostile forces or defeated in detail. . . . A significant advantage is created by the ability of airmobile forces to detect and select concentrations of enemy forces, then to land, attack, destroy, disengage, and withdraw or move to initiate subsequent attacks on other enemy concentrations before enemy forces can effectively react.⁷

Vulnerability to air defensive fires is recognized. It is compensated for by reliance on effective suppressive fires of all kinds and emphasis on accurate and timely intelligence.⁸

Surface artillery is displaced to secure firing positions within supporting distance. The displacement may precede, follow, or be concurrent with the movement of the airmobile force.⁹ Considerations which affect displacement include surprise, requirement for supporting fires, and

⁶Ibid., p. 4-1.

⁷Ibid.

⁸Ibid., p. 4-2.

⁹Ibid., p. 5-1.

aircraft availability.

Distances between units and bases of operation are influenced by mission, terrain, enemy capabilities, and the situation. These distances must be determined separately for each operation. "Counterinsurgency operations for air-mobile units may be over large areas with considerable distances between elements, whereas operations against a sophisticated enemy may be at rather close distances."¹⁰

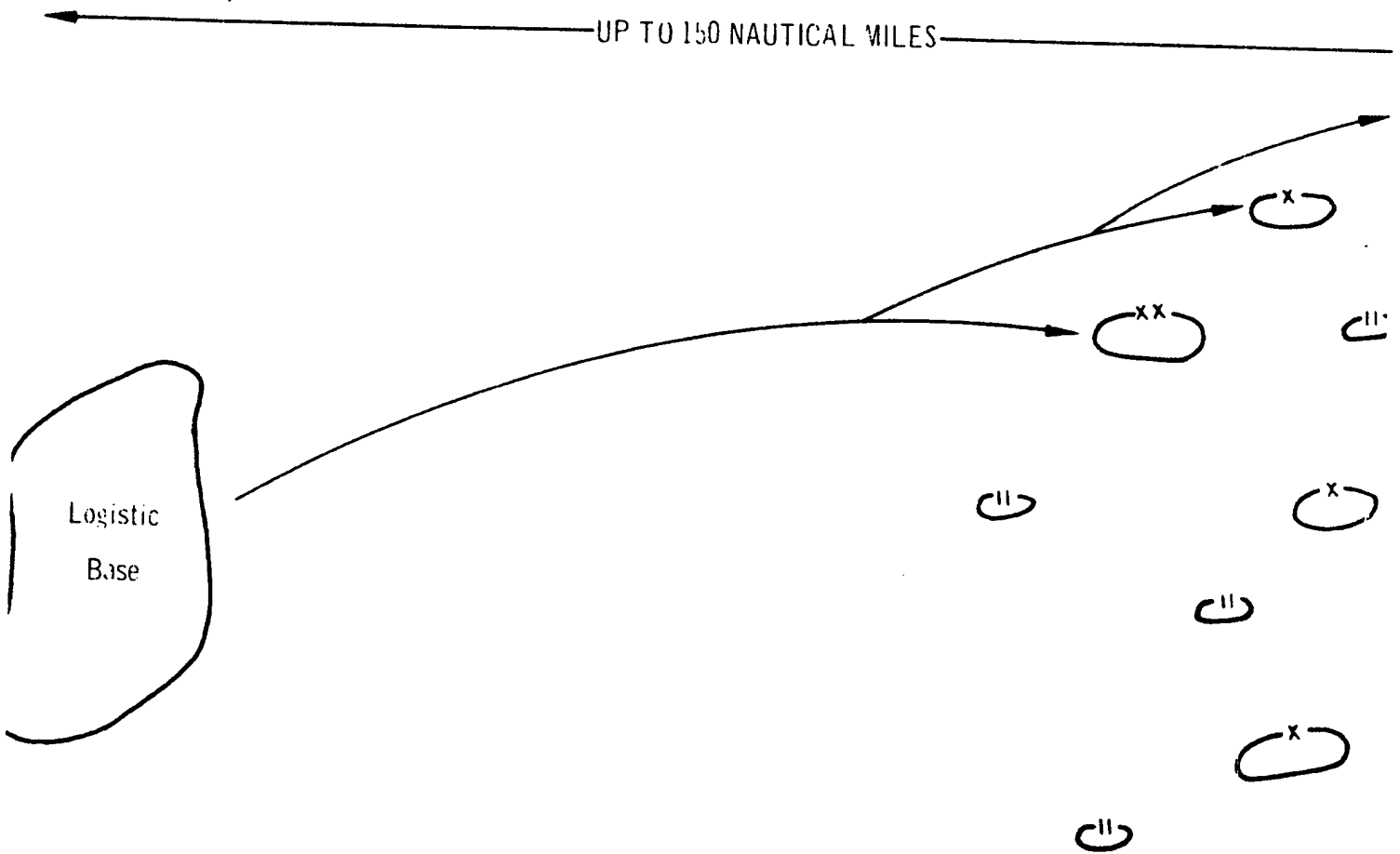
For independent operations in a conventional war environment, the air line of communications may be extended up to 150 nautical miles (see Plate XIII). In counterinsurgency operations in an underdeveloped area, however, it is considered that the air line of communications is capable of supporting the division base up to 125 nautical miles from the logistic base, brigade bases up to 50 nautical miles from the division base, and battalion bases an additional 35 nautical miles beyond the brigade bases, for a total of 225 nautical miles.¹¹

Combat service support is considered to have a capability for mobility equal to the division to sustain

¹⁰Ibid., p. 4-19.

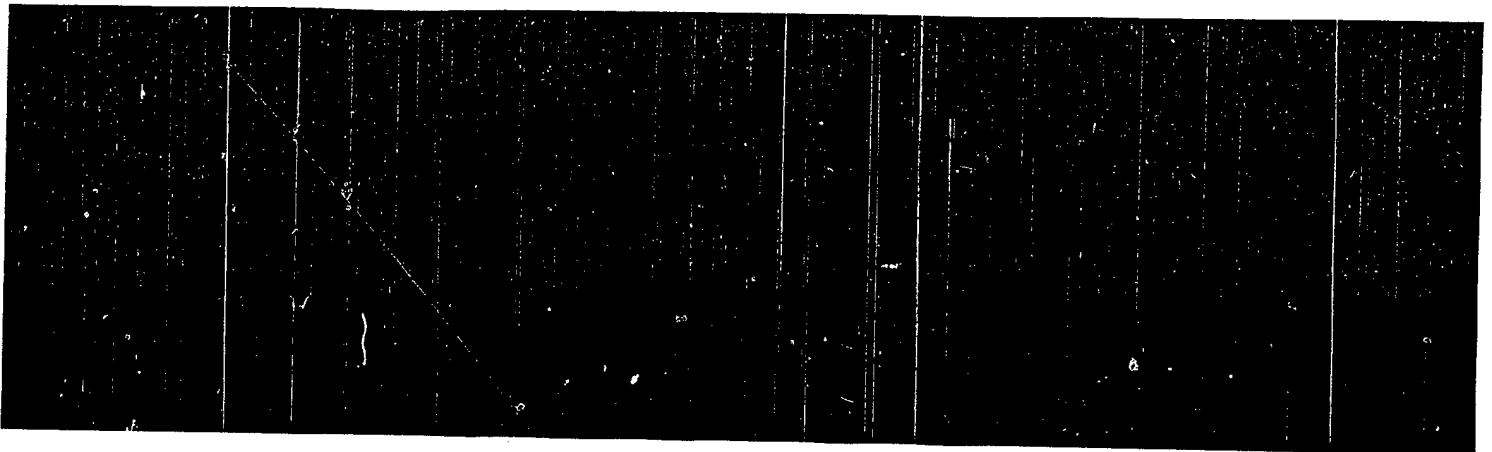
¹¹U.S. Army Combat Developments Command, Air Lines of Communication (AirLOC) Operations, In Support of the Air Assault Division, ST 55-7 (Fort Belvoir, Va.: Combat Developments Command, June 1963), p. 27.

PLATE XIII



AIR LINE OF COMMUNICATIONS

Source: U.S., Department of the Army, Army Air Mobility Concept (Washington, Department of the Army, 12 December 1963), p. A-1.



operations by making maximum use of Army and Air Force aircraft in forward areas to provide airlift tonnage requirements to sustain airmobile forces at rates and distances involved in tactical operations.¹²

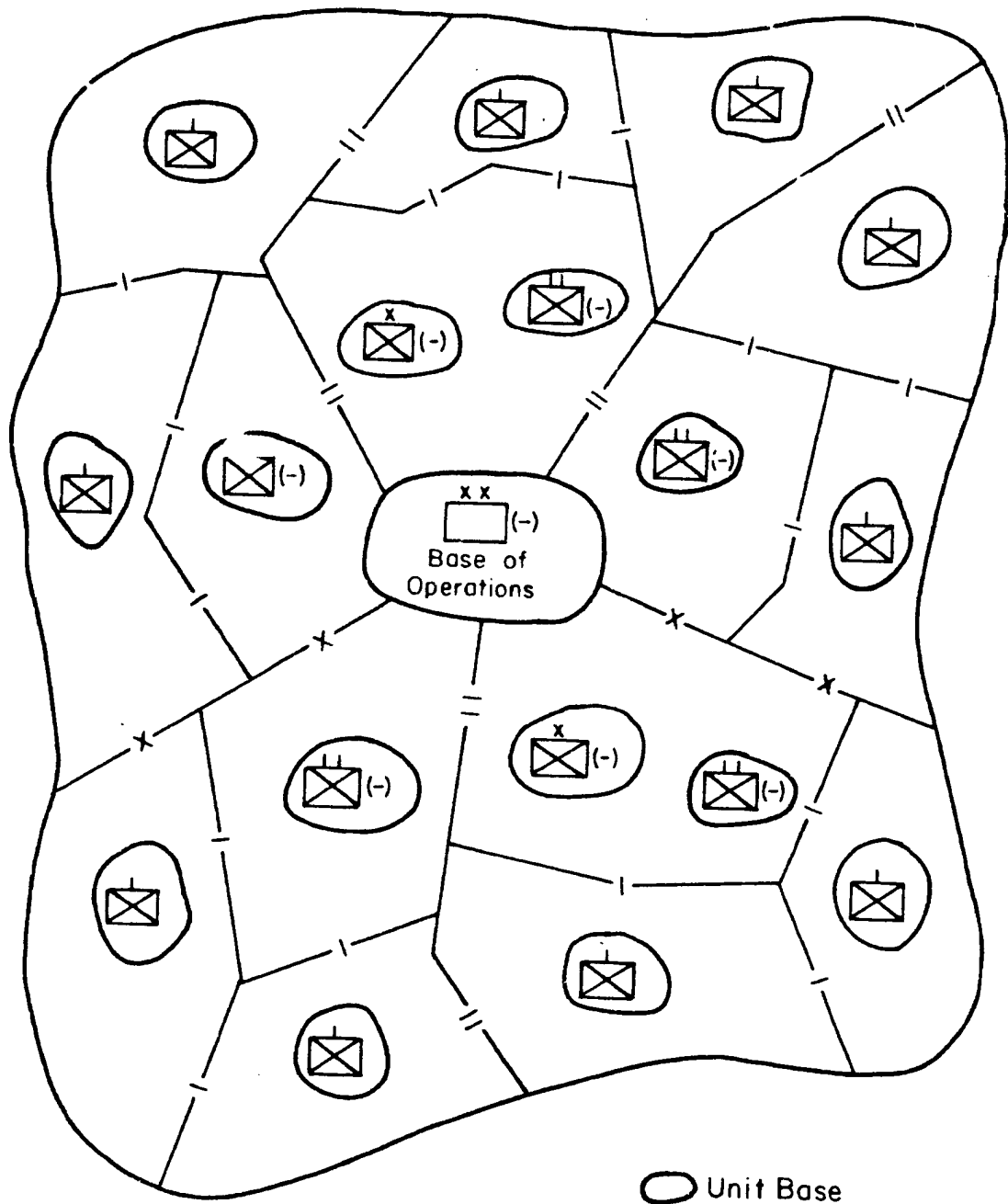
Air Assault Concept in Counter-insurgency Operations

Within the air assault concept counterinsurgency operations are conducted by relatively small, self-sustaining elements operating from mobile bases. Offensive operations are directed to the location and destruction of guerrilla forces, with minimum consideration of terrain objectives. Even though heavy reliance is placed upon aerial reconnaissance, intelligence techniques adapted to the enemy, the terrain, and the environment are employed.¹³

Plate XIV illustrates schematically the air assault concept for employment of the airmobile division in an underdeveloped area controlled by insurgent forces. The division mission is to destroy the enemy and establish control over the area. The mission is performed by systematically locating and destroying enemy forces. All sources of information and the element of surprise are exploited in the

¹²Combat Developments Command, The Division, p. 6-1.

¹³Combat Developments Command, The Division, pp. 4-11 & 4-12.



AREA SEARCH AND CONTROL

Source: U.S. Army Combat Developments Command, The Division (Air Assault Division Supplement), ST 61-100-1 (Fort Belvoir, Va.: Combat Developments Command, 25 June 1964), p. 4-13.

conduct of airmobile operations to locate, isolate, and defeat enemy forces in detail. Each division echelon retains a reserve at its base of operations. Ground patrols are increased during non-flying weather.¹⁴

This example is more suited to guerrilla warfare than mobile warfare. The example and the air assault concept from which it stems do not provide for different levels of insurgent threat--jumping from guerrilla warfare to limited war opposing conventional forces. Mobile warfare is analogous to guerrilla warfare, but the insurgent employs larger forces. The ensuing analysis of the air assault concept is conducted in the context of Phase III insurgency, mobile warfare as it is being conducted by Viet Cong and PAVN units in Vietnam today.

Analysis of the Air Assault Concept for Employment of the Airmobile Division

Analysis is developed within the following areas:

1. Concept of operations: general approach to the mission of locating and destroying insurgent forces in an underdeveloped area.
2. Location of the enemy: actions taken to find an insurgent force and to determine its strengths and

¹⁴Combat Developments Command, The Division, pp. 4-12 through 4-14.

disposition short of initiating a battle to destroy it.

3. Engagement of the enemy: actions taken to fix an insurgent force by restricting its maneuver. Engagement includes actions to determine enemy strength and dispositions that are likely to lead to a battle being joined.

4. Destruction of the enemy: actions taken to destroy or capture an insurgent force by means of fire and maneuver.

Concept of Operations

The current concept of operations is characterized by wide area coverage by small, self-sustaining forces, with separate bases of operation for each deployed brigade, battalion, company, and platoon. This concept is analyzed in terms of mutual support, security of bases of operation, and the role of security forces as reserves.

Both offensive and defensive capabilities depend on mutual support when small forces are widely dispersed. Two units are in mutual support if they can come to the aid of each other before either can be defeated separately. Mutual support is a function of the capabilities of the two units, the capabilities of the enemy, the terrain, and the weather.¹⁵ Conversely, in counterinsurgency operations,

¹⁵Department of Military Art and Engineering, Notes

mutual support must also include the ability of two units to come to the aid of each other before a located guerrilla force can escape. Separated airmobile forces may be mutually supporting when adequate landing zones exist, when weather flying minimums obtain, and when aircraft are available. However, if one of these conditions is denied and support is dependent upon a foot mobile force moving the same distance, possibly through difficult terrain, mutual support is lost. Such forces may be unable to destroy located guerrilla forces or, even worse, may suffer defeat in detail.

Mutual support may be a minor consideration in operations against guerrillas, with their inferior combat power, but its importance increases when opposed by insurgent forces of battalion and greater size operating in rugged, forested terrain. Such a force constitutes significant combat power. This is especially true in mobile warfare, in which the enemy seeks quick, decisive battles of his choosing. Restricted landing zones, darkness, monsoonal rains, and periods of fog and low clouds favor his fighting a quick battle of annihilation before a small force can be reinforced by an airmobile operation.

The enemy threat in terrain favoring his operations is such that the airmobile division must muster significant combat power to restrict his maneuver and destroy him. Even blocking forces positioned to restrict enemy maneuver must be of sufficient size to avoid being defeated in detail. Because the geography of Vietnam generally favors the defense, infantry units attacking to destroy an insurgent force must be significantly stronger than the enemy, even after his maneuver is blocked and supporting fires are applied. An airmobile task force may require a combat power advantage well above three to one to fix and finish a relatively small force.

Security of multiple bases, with forces being used in a security role at each echelon, reduces forces available for commitment in offensive operations. For instance, up to a rifle company may be required to secure a battalion base of operations employed outside of the brigade base. Such an installation, with the battalion's organic vehicles, tentage, aid station, limited stocks of supply, and activities, lacks the passive security of mobility. In a counterinsurgency environment it lacks the active security afforded by frontlines or a larger unit perimeter. If the requirements of a battle result in commitment of security forces in their reserve role, unacceptable vulnerability is incurred.

Security of both forward and rear installations was identified as a deficiency of technique in tests of the air assault concept.¹⁶

The base of operations at each echelon is secured by the reserve, which gives that force a dual role. The roles of reserve and security force are mutually exclusive when there is a likelihood that the larger force may require reinforcement of its combat operations while at the same time having a significant security threat to its base of operations. In chess parlance this is known as a pin--when one piece cannot be moved because it will expose a more valuable piece to loss. A clever enemy could employ a diversionary effort for the purpose of drawing away reserves and then attacking the exposed base of operations--"make a noise in the east and attack in the west."

During airmobile operations in an underdeveloped area against insurgent forces engaged in mobile warfare, a concept of operations visualizing dispersion of small, self-sustaining units and multiple bases of operations has the following deficiencies:

1. Combat power is dissipated at a time when the enemy threat, his tactics, and the nature of the area

¹⁶Project TEAM, I, A-1-6.

indicate that it should be massed.

2. Separate bases of operations for each deployed brigade and battalion pose a significant requirement for security forces throughout the division.

3. The roles of reserve and security force are mutually exclusive for one unit.

These deficiencies can be overcome by basically massing the airmobile force. The current and the proposed concepts follow.

[Current:] Operations are conducted by self-sustaining elements of relatively small size that operate from mobile bases.

Proposed: Operations are conducted by self-sustaining elements of relatively large size that operate from mobile bases.

Airmobile task forces of brigade and battalion size are employed to conduct offensive operations in an assigned area to locate, fix, and destroy insurgent forces. As larger insurgent forces are located, two or more brigade size airmobile task forces may be committed to engage and destroy them.

Location of the Enemy

The air assault concept for locating the enemy is characterized by heavy reliance on aerial reconnaissance complemented by ground reconnaissance, the use of reconnaissance in force, and raids. Concept analysis is in terms of

¹⁷Combat Developments Command, The Division, p. 4-11.

the capabilities of aerial reconnaissance, considerations of surprise, the nature of insurgent forces in an underdeveloped area, the characteristics of reconnaissance in force, and raids.

The means of aerial reconnaissance available to the airmobile division are side-looking airborne radar (SLAR), infrared (IR), photography, and visual observations. SLAR is suited to detection of movement by motorized or mechanized forces when its radar beam is not interrupted by terrain or foliage. It is not an effective means of locating a foot mobile, lightly equipped insurgent force in difficult terrain. IR is not dependent upon line-of-sight characteristics, but it is relatively insensitive to the characteristics of insurgent forces, which limits its application and dependability. Photography, of course, is dependent upon line-of-sight, which limits its effectiveness in locating insurgent forces. On the other hand, photography is useful in maintaining surveillance of an area over a period of time for indications of insurgent presence and for changes in the condition of anticipated landing zones. It is a useful tool in planning airmobile operations. Visual observation is also line-of-sight and although an aerial observer can collect relatively detailed intelligence within a large area, forces and activities concealed by heavy foliage and

dissected terrain will escape his view.

While aerial reconnaissance is faster than ground reconnaissance, it is not as reliable. Airmobile forces are sensitive to timely and accurate intelligence and need the dependable intelligence that can be gained only by ground reconnaissance.

Because of the limitations of aerial reconnaissance in this environment, the intense effort required to gain essential information is exerted at the expense of surprise. During tests of the air assault concept much of the success of air assault operations was attributed to intelligence gained by aerial scouts who made repeated low-level passes and by commanders who hovered over troop formations.¹⁸ This practice not only requires extended exposure to air defensive fires, but it also reveals the intentions of the command. An alerted insurgent force may use precious minutes to move out of the area to avoid battle or to defend or reinforce likely landing zones, especially landing zones that are restricted. Surprise is considered essential in the air assault concept, and yet heavy reliance on aerial reconnaissance is a built-in contradiction that alerts the enemy to impending attack. While ground reconnaissance may

¹⁸Project TEAM, I, A-1-5.

also sacrifice surprise, there is at least the possibility of stealth--seeing without being seen.

The purpose of a reconnaissance in force is to discover and test the enemy's position and strength or to develop other intelligence. Its size and composition must cause the enemy to react strongly and definitely to the attack, thus disclosing his locations, dispositions, strength, planned fires, and planned use of reserves. The force is extricated if it becomes closely engaged.¹⁹ Reconnaissance in force should be considered as part of engagement of the enemy because it is dependent upon some initial knowledge of the enemy's location. Also, once launched the action may be advanced beyond efforts to locate the enemy, with the battle being joined.

When faced with a reconnaissance in force, an inferior insurgent force will not reveal a strong defensive plan. He will endeavor to withdraw into more difficult terrain to avoid battle. A superior insurgent force would seek a quick battle of annihilation, thus making it necessary for the airmobile force to be extricated. The execution of an aerial withdrawal while under strong enemy attack, without

¹⁹U.S., Department of the Army, The Division, FM 61-100 (Washington: U.S. Government Printing Office, 25 June 1965), p. 77.

suffering the loss of a relatively large rear guard, was cited as a deficiency in technique during tests of the air assault concept.²⁰ Superior firepower would facilitate attempts of an airmobile force to break contact and withdraw. However, the insurgents' better knowledge of the local area, their better mobility on foot, and the protection against indirect and aerial fires afforded by the cover and concealment of heavy vegetation would permit them to maintain heavy pressure and contact. The result is that an airmobile force erroneously committed would be subject to destruction. Reconnaissance in force belongs to tanks because of their ability to give and take severe punishment. It does not belong to airmobile forces because of their sensitivity to intelligence, vulnerability to air defensive fires, and corresponding low margin for error.

A raid, like a reconnaissance in force, is a means of engaging the enemy. Detailed intelligence is essential to its success.²¹ The intelligence value of a raid lies in capturing personnel, documents, or equipment for intelligence purposes, not in gaining information vital to the

²⁰Project TEAM, I, A-1-6.

²¹U.S., Department of the Army, Airmobile Operations, FM 57-35 (Washington: U.S. Government Printing Office, 17 September 1963), p. 35; and Department of the Army, The Division, pp. 138-139.

conduct of an insurgent battle. A raid is not a means of locating insurgent forces but, rather, is dependent upon that knowledge.

In conventional warfare, information gathered by either a reconnaissance in force or a raid might be valid for hours, even days. Against insurgent forces it would be obsolete almost before the action was broken off. Exceptions to this would be rare.

The local population is potentially the richest source of information concerning the location and strength of insurgent forces. The willing cooperation and support of these people may be influenced by political conditions, attitudes, or the need for security from insurgent reprisals beyond the ability of the airmobile division to control. Every action of an airmobile force must be considered in light of its effect on the population, with the goal of influencing people to cooperate with the counterinsurgency effort, especially by providing information. This favorable condition may be advanced by the use of indigenous intelligence teams in support of airmobile task forces.

Deficiencies of the air assault concept in the area of locating insurgent forces include those listed below.

1. Heavy reliance is placed on aerial reconnaissance, which is faster but may prove less reliable than

ground reconnaissance.

2. A basic contradiction exists between an intensive aerial reconnaissance effort and the gaining of surprise in a subsequent airmobile operation.

3. Reconnaissance in force and raids are not suitable techniques for an airmobile force to employ to develop intelligence of enemy strength and dispositions because of the dependence of airmobile operations upon timely and accurate intelligence.

4. Minimal consideration is given the intelligence value of the civilian population in counterinsurgency operations.

These deficiencies can be overcome if the current concept quoted below is modified as indicated by the proposed concept that follows it.

[Current:] Intelligence for airmobile operations is characterized by a high degree of centralized planning in the pre-assault phase, decentralized control during the execution phase, and heavy reliance upon aerial collection means throughout all phases of the operation.²²

Intelligence techniques suited to the tactics, enemy, and environment common to this type of combat [counterinsurgency] are employed.²³

Reconnaissance in force and raids by airmobile forces of appropriate size continue to locate and destroy enemy

²²Combat Developments Command, The Division, p. 5-8.

²³Combat Developments Command, The Division, p. 4-12.

found operating within this area [of operations].²⁴

Proposed: Intelligence for airmobile operations is characterized by a high degree of centralized planning in the pre-assault phase, decentralized control during the execution phase, and coordinated aerial and ground reconnaissance with heavy reliance on ground collection means throughout all phases of the operation.

Extensive ground patrolling by organic units and indigenous teams is conducted to locate insurgent forces. These patrols may be supported by helicopters which move them to a clandestine landing zone from which they can patrol by stealth.

Every effort that can be made in good faith is advanced toward gaining the cooperation of the local populace in providing information of insurgent forces. Indigenous intelligence teams are essential to counterinsurgency operations in a host country.

Engagement of the Enemy

Within the air assault concept, engagement of the enemy is characterized as follows:

1. Little distinction is made between fixing and destroying the enemy.
2. Firepower and mobility are employed to fix enemy forces.
3. Airmobile forces land on undefended objectives or in close proximity when the objective is a guerrilla force, with followup assault on foot.
4. Speed and surprise are stressed in rapid

²⁴Combat Developments Command, The Division, p. 4-14.

execution and timely withdrawal, both of which are based on detailed prior planning.

Engagement of the enemy is analyzed in terms of fixing the enemy, landing of the airmobile force, tactical surprise, and aerial withdrawal while engaged.

As partially borne out in the name given the operation, "locate and destroy" or "search and destroy," little distinction is made between fixing and destroying the enemy. The current concept is to locate the enemy, restrict his maneuver by the application of fires from mobile aerial platforms, and then land infantry units in his close proximity for followup assault on foot. The combat power of an airmobile force of battalion or brigade size applied in this manner against an insurgent force of company or battalion size caught in the rice paddy land of the delta or on a wide, grassy plateau of the highlands would probably yield decisive results. However, insurgent forces pursuing mobile warfare endeavor to avoid battles under conditions unfavorable to them. They will usually be engaged in swamp forests or forested mountains that favor their defense or withdrawal. The effectiveness of aerial fire support is therefore reduced by both an inability to see the insurgent force and the attenuating effect of heavy forest and swampland mud on high explosive ammunition. It is unlikely that the maneuver

of an insurgent force will be restricted by aerial fire support alone.

In landing the infantry units in the close proximity of the insurgent force to destroy him by followup assault on foot, the bulk of the fire support is provided by aerial platforms. Unless the insurgent force is caught completely unaware, the landing will be in difficult terrain of his choosing. Landing zones will be restricted and those available will be covered by fire. In short, landings in the close proximity of the enemy force may be difficult and dangerous. If the insurgent chooses to withdraw, heavy forests will assist him. If he chooses to defend, he will have prepared positions and the airmobile force will be heavily engaged on landing. In neither situation is the enemy held in place, nor is an advantage gained by maneuver that will advance propitious conditions for delivering an overwhelming attack to destroy the enemy. Landing of airmobile units in the close proximity of aggressor prepared positions was cited as a deficiency in technique during tests of the air assault concept on the basis that combat experience does not support the assertion that aerial suppressive fires can destroy the aggressor ground capability before a landing.²⁵

²⁵Project TEAM, I, A-1-6.

Insight into the air assault concept of landing in the close proximity of the enemy may be gained from a brief discussion of applicable Army doctrine. Within Army doctrine, airmobile landing are divided into three groups. One involves landing directly on an undefended terrain objective. The second involves landing in the close proximity of a defended objective for followup assault on foot. The third involves an unopposed landing followed by an attack to seize the objective.²⁶ The following doctrinal statements are applicable to involvement of the second group.

The assault begins when the fires of the maneuver force have eliminated or neutralized effective enemy fire. This may occur either at the final coordination line or anywhere between this line and the enemy position.²⁷

Because of the dispersion pattern of indirect supporting fires . . . the final coordination line is normally located within 100 to 150 meters of the enemy position on the objective, or as close to the enemy position as attacking troops can move before becoming dangerously exposed to friendly supporting fires. It should be easily recognized on the ground. Ideally, it should have concealment and cover.²⁸

The assault starts from the landing zone, which is

²⁶Department of the Army, Airmobile Operations, p. 18.

²⁷U.S., Department of the Army, Rifle Platoon and Squads: Infantry, Airborne and Mechanized, FM 7-15 (Washington: U.S. Government Printing Office, 10 March 1965), p. 28.

²⁸Ibid., p. 25.

as close to the enemy positions as friendly supporting fires will permit. Considering the vulnerability of helicopters to air defensive fires, it must be presumed that great dependence can be placed on the ability of supporting fires to suppress enemy fire in the vicinity of the landing zones. Since combat experience against any enemy employing machine guns with overhead cover does not support this presumption, landing in the close proximity to such an enemy is likely to result in undue damage to an airmobile force.

The reasoning which is used to support adoption of the technique of landing in the close proximity of insurgent forces within the air assault concept is revealed in the following sequence of doctrinal statements:

The assault phase of an airmobile operation begins with the landing of the lead elements and continues through the seizure of the objective area and the occupation of the initial security positions.

The fact that an airmobile force usually lands where there are few fixed defenses and few well organized enemy combat troops facilitates rapid seizure of initial objectives.²⁹

The assault phase of the airmobile operation begins with the landing of the lead elements and continues through the destruction of the guerrilla force.³⁰

²⁹ Department of the Army, Airmobile Operations, p. 18.

³⁰ U.S., Department of the Army, Counterguerrilla Operations, FM 31-16 (Washington: U.S. Government Printing Office, 19 February 1963), p. 33.

Tactical surprise is achieved through delivery of assault forces immediately adjacent to a known or suspected guerrilla force. Trained shock troops are committed in the initial assault wave.³¹

The reasoning appears to be that an airmobile force usually lands where there are few fixed defenses or well organized combat troops, and that this description covers the guerrilla (insurgent) forces. Therefore, airmobile landings are made immediately adjacent to insurgent forces. Should an insurgent force present significant combat power, it is to be overcome by "trained shock troops" making the initial assault. This technique promotes faster closing with the enemy to fix and destroy him, but it may incur undue damage to an airmobile force.

The remaining technique, an unopposed landing followed by a coordinated attack, is to be used if the terrain and enemy situation do not permit landing on or immediately adjacent to objectives.³² This technique is not included in the air assault concept, apparently because:

1. It is essentially slower and requires a longer ground attack.

³¹U.S., Department of the Army, U.S. Army Counterinsurgency Forces, FM 31-22 (Washington: U.S. Government Printing Office, 12 November 1963), p. 49.

³²Department of the Army, Airmobile Operations, p. 18.

2. Aerial suppressive fires and tactical surprise are considered sufficient to neutralize enemy defensive fires.

In accordance with cited Army doctrine, unopposed landings should be sought when the enemy has fixed defenses or well organized combat troops. The insurgent forces currently operating in Vietnam do have these characteristics; available cover and concealment degrade suppressive fires; tactical surprise cannot always be relied on--all these indicate that airmobile forces should seek unopposed landings.

Tactical surprise does not require taking the enemy unaware, but, rather, that he becomes aware of the attack too late to react effectively. When insurgent forces are disposed in difficult terrain, a significant ground and air reconnaissance effort must be made to locate them and to discover enough information of their strength and dispositions to develop a plan of attack. The likelihood is that during the process of locating an insurgent force it will become aware of impending attack and react quickly. If the insurgents intend to avoid contact, the main body will withdraw into more difficult terrain and a covering force will prepare to engage and delay the airmobile force. If the insurgents choose to defend, the terrain will favor their

defense, which will be organized with prepared positions, automatic weapons, and mortars covering likely landing zones and avenues of approach. After some exposure to airmobile operations, it will be difficult to surprise insurgents with the speed or size of an airmobile attack.

Deficiencies of the air assault concept for engaging an insurgent force include:

1. Heavy reliance on aerial firepower to restrict the maneuver of insurgent forces; but the terrain and vegetation reduce the effect of fires and favor undetected movement by the insurgent.

2. Airmobile landings in the close proximity of an insurgent force for followup assault on foot; but the combat power of the insurgent, including his use of the terrain, favor unopposed landings.

3. Tactical surprise which is considered to degrade the insurgents' combat power; but necessary pre-assault reconnaissance alerts the insurgent to impending attack.

In consideration of these deficiencies the following modifications to the current air assault concept are proposed:

[Current:] Operations are carried out to locate and destroy enemy forces and installations or to seize terrain objectives and to prevent enemy withdrawal rein-

forcement, supply or the shifting of reserves.³³

Firepower and mobility are employed to fix enemy forces, reduce enemy firepower, limit enemy maneuver capabilities, and support friendly maneuver forces in the seizure of terrain and the destruction of the enemy.³⁴

The integration of maneuver, firepower, control, intelligence and support is maximized to introduce airmobile forces directly into the undefended objective areas from any direction or into a landing area in close proximity to the defended area for follow-up assault on foot.³⁵

Proposed: Operations are carried out to locate, fix, and destroy enemy forces or to seize terrain objectives which prevent enemy withdrawal, reinforcement, supply, or the shifting of reserves.

Firepower and maneuver are employed to develop the enemy situation, fix enemy forces, reduce enemy firepower, limit enemy maneuver capabilities, and to provide an advantage prior to attacking to destroy him. Should the enemy endeavor to withdraw, actions to fix him are repeated.

Airmobile forces are landed on undefended objectives or in undefended landing areas for subsequent ground attack to secure defended objectives.

Destruction of the Enemy

Within the air assault concept the enemy is destroyed by the application of fires followed by the landing of infantry in his close proximity for followup assault on foot. Although these techniques as they apply to

³³U.S. Army Combat Developments Command, The Division (Air Assault Division Supplement), ST 61-100-1 (Fort Belvoir, Va.: Combat Developments Command, 25 June 1964), p. 4-1.

³⁴Ibid.

³⁵Ibid.

operations against insurgent forces in Vietnam today were discussed above, their deficiencies are reiterated here for clarity.

1. The effects of supporting fires are reduced by heavy foliage, mud, and dissected terrain. If the insurgent force has prepared positions with overhead cover, suppressive fires may not neutralize his fires over available landing zones.

2. Landing in the close proximity of the insurgent force and just outside the dispersion pattern of friendly supporting fires exposes aircraft to air defensive fires to which they are vulnerable.

To overcome these deficiencies the following modifications to the current air assault concept are proposed:

[Current:] Firepower and mobility are employed to locate enemy forces, reduce enemy firepower, limit enemy maneuver capabilities, and support friendly maneuver forces in the seizure of terrain and the destruction of the enemy.³⁶

The integration of maneuver, firepower, control, intelligence and support is maximized to introduce airmobile forces directly into the undefended objective areas from any direction or into a landing area in close proximity to the defended area for follow-up assault on foot.³⁷

Proposed: After an insurgent force has been fixed maximum aerial and surface fire support is applied, followed by a coordinated ground attack to close with and destroy or capture the enemy.

³⁶Ibid.

³⁷Ibid.

Combat Service Support Considerations

No concept for employment of the airmobile division would be valid if it could not be supported logistically. Combat service support requirements for the modified concept are reduced from levels required for the air assault concept because, with battalions and brigades remaining essentially massed, there is a reduced transportation requirement for resupply and evacuation.

It is asible to group the battalion bases of operation within the brigade base of operation. Activities in the battalion base include the battalion command post, aid station, and organic maintenance. The battalion mess section currently remains in the brigade base.³⁸ The main command post can remain in the brigade base, with a small tactical command post accompanying committed elements and communicating via organic AM-SSB radios. Casualties are evacuated by air and can readily be delivered from the battle area to the brigade base by aircraft normally returning there. In counterinsurgency operations in underdeveloped areas there is little use for organic surface vehicles of

³⁸U.S. Army Combat Developments Command, Infantry Battalion, Air Assault Division, ST 7-20-1 (Fort Benning, Ga.: Combat Developments Command, 11 September 1964), pp. 57-59. The 1st Brigade of the 11th Air Assault Division habitually operated in this manner during tests of the air assault concept.

the battalion, with a correspondingly reduced requirement for organic maintenance support forward. Finally, requirements on the air line of communications are in no way increased, because under either concept supply and evacuation for combat and combat support elements are the same, with supplies being transported forward from the brigade base and wounded being evacuated to the division clearing stations located there by division aircraft.³⁹

By consolidating battalion bases within the brigade base, initial aircraft requirements are reduced because service support facilities are not transported forward of the brigade base, shortening their displacement distance from the division base. Supplies to be consumed by service support facilities are transported only as far forward as the brigade base, further relieving the air line of communications. Additionally, less troops are required for securing one consolidated base for the brigade than for securing separate bases for each battalion in addition to a brigade base.

Summary

In summary, the air assault concept for employment

³⁹ Army Combat Developments Command, The Division, pp. 6-6 through 6-8.

of the airmobile division in counterinsurgency operations calls for forces to be widely dispersed over a large area, with separate bases of operation for each deployed brigade, battalion, company, and platoon. The enemy is located through heavy reliance on aerial reconnaissance and surveillance, with ground reconnaissance to complete the picture. He is engaged by firepower and mobility of aerial weapons systems that deny him freedom of maneuver. He is destroyed by infantry units that are landed with surprise in his close proximity for followup assault on foot.

Analysis revealed that the air assault concept may be suited for counter guerrilla warfare in relatively open terrain but must be modified for counterinsurgency operations involving mobile warfare within restricted terrain.

A modified concept was evolved from the analysis and is proposed for employment of the airmobile division in counteroffensive operations against insurgent forces in mobile warfare in an underdeveloped area. The concept of operations calls for massing the combat power of the division and employment of minimum bases of operation. The enemy is located through heavy reliance on ground reconnaissance, coordinated with aerial observation. He is engaged by the deliberate employment of infantry units, supported by aerial fires, making unopposed landings and then maneuvering

to develop the enemy situation, restrict his maneuver, and provide an advantage prior to attacking to destroy him. Should the insurgent force endeavor to withdraw, actions to restrict his maneuver are repeated. The enemy is destroyed by the application of aerial and surface fires and the maneuver of infantry units that close with him in a coordinated ground attack.

CHAPTER VI

DISCUSSION OF PARAMETERS AND CONCLUSIONS

Air cavalry should be compared to a surgeon's scalpel--
not a blacksmith's anvil.¹

--James M. Gavin

Lieutenant General, USA, Ret.

Analysis so far has centered on the current struggle in Vietnam. Certain deficiencies were isolated in the air assault concept for employment of the airmobile division against the Viet Cong and units of the PAVN in that area. In consideration of characteristics of the division, the area, and the insurgent force, an alternative concept has been proposed. To be sure, the 1st Cavalry Division (Airmobile) has modified the air assault concept, which it tested as the 11th Air Assault Division, and in the field has evolved a concept similar to that developed in this thesis.

Discussion of Parameters

Which, if any, of the conclusions developed

¹Personal letter from James M. Gavin, USA, Ret., to Brigadier General H. W. O. Kinnard [November 1963].

regarding the situation in Vietnam are applicable to other levels of insurgency or to other parts of the world? Which would remain true if the insurgent force employed certain sophisticated weapons? The answers to these questions are discussed in the following paragraphs. The discussion points out that the ruling consideration is relative combat power, to include the effects of local geography.

1. Phase III insurgency.--To vary this parameter up to conventional war or down to Phase II insurgency (guerilla warfare) would be outside the scope of the problem addressed in this study. That the struggle in Vietnam is, in fact, Phase III insurgency is attested to by the insurgent's use of battalion and regimental size forces in the conduct of his mobile warfare. His organization, equipment, and doctrines resemble those of insurgent forces of the past in China, Indo-China, Algeria, and Cuba and can reasonably be expected to be present in Phase III insurgency in other parts of the world. This is especially true when considering subversive insurgency supported and fostered by the world Communist sphere.

2. Insurgent paramilitary forces.--Paramilitary forces are an inherent ingredient of Phase III insurgency and are included in its definition. The term includes the Viet Cong and will encompass the PAVN in light of the

following considerations. Even though they are units of the regular army of the DRVN, they fight with little supporting artillery, no air support, and minimal logistic support, and their tactics resemble those of insurgent forces in mobile warfare as expounded by Mao, Truong Chinh, and their commander, Giap. If the parameter is varied up to conventional armed forces or down to guerrilla forces, it results in conventional war or Phase II insurgency, both outside the scope of this thesis. The Viet Cong and PAVN resemble paramilitary forces of the past, and those of other parts of the world should have similar characteristics.

3. Underdeveloped area.--The aspects of an underdeveloped area germane to the airmobile concept are its geography, climate, and people. While these vary from country to country and even within the same country, basic similarities permit certain generalizations and conclusions. Rugged mountains, forested plateaus, and plains would favor the insurgent force in parts of South Africa, South America, South and Southeast Asia, Southeast Europe, South China, and Korea essentially as they do in the highlands of Vietnam. Taller mountains such as the Himalayas would further hinder the airmobile division by the reduced lift of aircraft flying at higher altitudes. Deserts, plateaus, and plains with limited vegetation or cultivated fields (such as in parts of

Australia, North Africa, Southeast Europe, South America, and the plains of Northern China and Western Russia) would favor aerial observation and unrestricted aerial maneuver of units much as in the delta and lowlands of Vietnam. Climate follows patterns, too; and only in areas where aviation weather is markedly worse than in Vietnam would it affect an airmobile concept applicable to Vietnam. Such areas are monsoonal Asia north of Hue, where monsoons are accompanied by extreme cloudiness and high mountains, such as the Himalayas or Andes, where prevailing winds and clouds would interrupt aviation operations. Poor weather conditions favor the proposed concept over the air assault concept because of its greater use of ground reconnaissance and ground combat.

So long as the struggle is insurgency, the people caught in the area of operations are under the influence of both the insurgent and government forces, and operations should be influenced by the political considerations of gaining and maintaining the support of the people. Population distribution is also a variable that will affect the airmobile concept. People throughout the underdeveloped areas of the world generally live on fertile river plains, with arid highlands being sparsely populated. Where the insurgent operates amongst the people the proposed concept

is superior to the air assault concept because reliance on ground patrols permits better differentiation between civilians and guerrillas. The people should have a smaller effect on operations in sparsely populated highlands.

Another consideration of the geography of underdeveloped countries is their size, which will affect logistics supporting the airmobile division. Since South Vietnam is the coastal strip of continental Southeast Asia, lines of communication within the country are not long. However, operations into the heart of a vast country such as China or deep into Africa would require long lines of communications. If these were on the ground and subject to insurgent interdiction they would affect the ability of the airmobile division to fight by restricting its resupply. An air line of communications from a secure port to the division base would place heavy combat service support demands on supporting fixed wing aircraft and would decrease their availability for combat operations.

4. Offensive operations to locate and destroy insurgent forces in a specific area.--This parameter is varied by considering two alternate missions: to secure a specific area or to interdict a border. In the first mission it must be presumed that the insurgent threat has been considerably reduced, permitting dispersed operations by the

airmobile division, with small forces not being endangered by defeat in detail. This condition would obtain also in sealing a border where the principal concern is the interdiction of supplies, not combat against large forces operating overtly. Although the size of airmobile task forces would be reduced, the concept for locating, engaging, and destroying elements of the insurgent force is covered by the same considerations of relative combat power and terrain that dictate the proposed concept. The proposed concept should be valid for the division in performing security and interdiction missions.

5. Contemporary (1965-66).--Consideration of future counterinsurgency operations must deal with developments on both sides of the struggle. Were the capabilities of the insurgent force improved significantly above the level encountered in Vietnam, it would be a conventional force and the struggle would be conventional war, which is beyond the scope of this thesis. Future developments in the airmobile division would have to significantly improve the division's capabilities in order to affect the airmobile concept. The areas of mobility, firepower, and communications are technologically advanced beyond the surveillance capability. Development of some piece of equipment offering instant intelligence, equal to that currently gained by tedious

ground patrols would permit acceleration of the tempo of operations consistent with the air assault concept.

A more reasonable future trend is the expansion of insurgency to other underdeveloped countries of the world. Considering geographical variations discussed above and no unforeseen technological developments, the proposed air-mobile concept should be valid in the future.

6. Neither side employs nuclear, chemical, or biological weapons. --Should nuclear weapons be employed, the struggle escalates to nuclear warfare, which is beyond the scope of this thesis. Extensive use of chemical agents would affect the proposed concept as follows. Defoliation on a large scale would permit better results from aerial observation, tending to increase the possible tempo of operations. Non-lethal gasses could immobilize insurgent forces, permitting their capture without casualties on either side. Lethal agents would also permit elimination of insurgents with minimum casualties to the airmobile division. Rapidly dispersed persistent agents would speed efforts by the airmobile division to restrict the maneuver of a located insurgent force, which would also tend to increase the tempo of operations. Although the use of non-lethal agents may be the most humane way of eliminating the insurgent, the controlling disadvantage in the use of

chemical agents is the adverse effect on the population. Civilian casualties attributed to the use of gas would interfere with efforts to win the hearts and minds of the people.

Insurgent forces have neither the capability to disperse large amounts of chemical agents nor the protective equipment to exploit their use. Persistent agents might be employed to deny landing zones, which would significantly retard airmobile operations. Should this ensue, the proposed concept is superior to the air assault concept by requiring ground reconnaissance prior to the landing of the main body of an airmobile task force.

Biological agents are generally slower acting and attack the insurgent force indirectly by affecting his livestock, food, and health. Since they are not employed during the conduct of an operation, that is, from the time the force is located until the time that same force is destroyed, they would not affect the proposed airmobile concept.

7. Enemy has limited air defense capability.--If the parameter is varied to a level where the insurgent force has an effective air defense capability, in the form of weapons similar to the U.S. Army's anti-aircraft automatic weapons or Red Eye missile, it will adversely affect

airmobile operations by the airmobile division. There is controversy over the extent to which such weapons can interrupt helicopter operations. That controversy will not be settled here, but the following observations do suggest one conclusion. Imagine the effect of a "Quad 50" that suddenly opens fire on a flight of sixteen UH-1D helicopters as they flare out to land in a landing zone thought to be clear. This vulnerability of helicopters to air defensive fires is recognized, with reliance placed on accurate, timely intelligence and suppressive fires to neutralize ground-to-air fires. However, the proposed concept is favored over the air assault concept because of the requirement for ground reconnaissance as opposed to aerial reconnaissance; since it affords more accurate observations and reconnoitering of landing zones before landing the main body of an airmobile task force.

8. Enemy has limited electronic countermeasure capability.--Should an insurgent force be able to jam radio nets of the airmobile division or insert bogus messages, these actions would tend to disrupt airmobile operations. However, the effect of jamming is markedly reduced by parallel radio nets on FM, AM-SSB, and UHF. Heliborne commanders may be in contact over all three modes at the same time. Heavy reliance is placed on FM for operational coordination

among infantry, aviation, and artillery so that jamming of local FM frequencies could seriously hinder the execution of an operation. Even in this case, there are parallel FM nets (infantry battalion command, aviation/pathfinder, fire direction) and alternate frequencies that will permit key leaders to rapidly reestablish communications. Further, because of the ability of the helicopter to fly low over a ground station, the heavy jammer would have to be close to the force on the ground or have mobility comparable to the helicopter, if he were to continuously disrupt radio contact.

The possibility of significant bogus traffic is reduced because key officers heliborne and using headsets, or on the ground and personally coordinating a complex operation, use the radio themselves with minimum reliance on radio operators. These officers know each other and understand the current operation, so that a strange voice or out-of-line message would be questioned. Should the enemy overcome all these difficulties and still successfully employ electronic countermeasures, airmobile operations, by any concept, would be disrupted. The proposed concept should be slightly favored over the air assault concept in this situation due to its demands for a greater intelligence effort.

9. The airmobile division operates from a secure

division logistics base.--Depending on the threat, from one to three infantry battalions may be required to secure the division base. If this force is provided by the armed forces of the host nation, or if some other security is provided, then organic battalions can be released to the division for the pursuit of combat operations. On the other hand, if security forces are not provided from outside resources, the strength of the division in the field is reduced.

A further consideration is the sultry climate and generally forested, rugged terrain in which counterinsurgency operations are most likely to be conducted. Debilitating effects of this environment require the periodic rotation of units from wearing, offensive operations in the field to the lighter duty of the rear, such as securing the relatively fixed defenses of the division base. Due to the possibility of joining the requirement for periodic rotation (which itself reduces the division's field strength) with the security task, securing the division base by indigenous forces would not materially increase the rifle strength of the division in field operations. The manner of securing the division base in this environment does not materially affect the proposed concept as it relates to the conduct of operations by airmobile task forces in the field.

10. Civil affairs and civic action support are provided when these responsibilities are incurred.--In the pursuit of combat operations, the airmobile division's first concern with the civilian population is to prevent interference with combat operations, and its second is to gain information about insurgent activities. Indigenous intelligence teams can assist the division immeasurably in doing this. Other aspects of civil affairs and civic action (including relief of hardship and fulfillment of national policy commitments and environmental improvements) are part of pacification. These efforts assist in the mission of securing an area, its people, and its resources. In turn, they permit the functioning of government under law. As such, the major civic action and civil affairs efforts are outside the scope of this thesis.

Should the division have civil affairs and civic action responsibilities and not be augmented with specialists, a significant diffusion of effort from combat to political and welfare activities will result. To this extent, the capabilities of the division to pursue combat operations will be reduced, within any concept. Other than reducing resources available for offensive operations, civil affairs and civic action augmentation does not affect the proposed concept for the execution of operations.

11. Parachute capability of one brigade is not employed.--The parachute capability of one brigade (three infantry battalions, a 105mm artillery battalion, and the division engineer battalion) provides two advantages to the airmobile division. First, it extends the tactical range of operation to that of Air Force aircraft. Also, it permits accelerated buildup in an objective area by the simultaneous delivery of airmobile and airborne forces.² The extended range permits the initial assault to secure a division base for the purpose of initiating operations in a new area. The airborne assault would be followed by the airlanding of personnel and equipment. Helicopters would be flown into the new division base area without loads, possibly employing auxiliary fuel tanks to extend their range. Entry into the interior of a large underdeveloped country could be made this way. Subsequent operations would have to be sustained by a ground or air line of communications, as discussed previously. In this respect the airborne capability does not affect the proposed concept for execution of counterinsurgency operations.

²U.S. Army Test, Evaluation and Control Group, Project TEAM [Test, Evaluation Air Mobility], Field Test Program: Army Air Mobility Concept, Vol. I: Basic Report (Fort Benning, Ga.: U.S. Army Combat Developments Command, 15 January 1965), p. A-2-1.

The capability to build up forces rapidly in an objective area can be employed in counterinsurgency operations. In an action where the situation has developed the enemy's strength, composition, and disposition and has fixed him, a large airborne force, immediately available, could be committed to land by parachute assault to destroy the insurgent force. However, such an operation would normally be infeasible due to the mobility of guerrilla forces, which makes them difficult to hold in place for long; the difficulties in developing the necessary timely, accurate intelligence; the dearth of suitable drop zones in the difficult terrain favored by the insurgent force; and, above all, the high cost in battalions and Air Force aircraft that would be idle while marshalled and waiting for the call to action. Such air operation would be hopelessly slow if the airborne force was not on runway alert or air alert at the time it was needed. In this light the division's airborne capability does not affect the proposed concept, although the proposed concept must be favored over the air assault concept because of its stress on developing better intelligence.

Each of the parameters above defines the subject of this thesis, does not influence the analysis, or in some way affects the relative combat power between the airmobile division and the insurgent force. Changing the level of

conflict, the type of enemy, or the mission of the division throws the discussion outside the scope of the subject, although some valid observations are possible and are offered.

The analysis is not influenced by projecting the discussion into the future because there are no foreseeable changes in the characteristics of the division, an underdeveloped area, or the insurgent force. Provision of indigenous forces to serve the division base does not influence the analysis because of the requirement in the debilitating environment to rotate forces from offensive operations to less strenuous duty, which can include the security of the division base. Analysis is not influenced by the division parachute capability because airborne operations either are outside the scope of the subject or are infeasible within its context.

Relative combat power is affected by the following parameters: the military geography of different underdeveloped countries; enemy capability to employ nuclear weapons, chemical and biological agents, air defense weapons, and electronic countermeasures; and augmentation of the division to execute civil affairs and civic action responsibilities.

Conclusions based on the military geography of Vietnam should be valid in other underdeveloped countries with a

similarly difficult, confining environment, such as the remainder of Southeast Asia, Southern China, Korea, South Africa, and parts of South America. Some other areas with unforested plains and plateaus and deserts favor the air assault concept, which depends on unrestricted aerial observation and landing zones to promote an accelerated tempo of operations. Where the military geography favors the insurgent the proposed concept should be valid.

Because of its particular characteristics, the airmobile division is vulnerable to enemy capabilities such as the use of persistent chemical agents on landing zones, air defensive fires, and electronic countermeasures. When employed by insurgent forces these actions can disrupt the relative combat power advantage of the airmobile division. Only by timely, accurate intelligence can airmobile task forces avoid exposure to disadvantageous situations. In this, the proposed concept is favored over the air assault concept because of its reliance on ground reconnaissance to confirm aerial observations and reconnoiter landing zones, and because of the inherently slower, more deliberate tempo of operations tailored to the intelligence capability of the airmobile division.

Augmentation of the airmobile division with civil affairs and civic action teams to execute division

responsibilities in these areas, preserves the division's combat power for the conduct of offensive operations. Of more importance are indigenous teams to accompany airmobile task forces to assist them in preventing civilian interference in combat operations and to gain intelligence of insurgent activities from the people.

The proposed concept should be valid in other environments where the relative combat power of the airmobile division and the insurgent force is similar to that existent in Vietnam. Where the enemy and the geography combine to pose a significant threat, a deliberate approach, stressing security ahead of assuming risks for the sake of speed and surprise, is superior to the hasty approach embodied in the air assault concept. On the other hand, where enemy capabilities are reduced and the geography favors the airmobile division, unobstructed aerial observation and unrestricted landing zones permit the quality of intelligence and complete flexibility essential to the hasty operations of the air assault concept.

Conclusions

As a result of the material presented and analyzed in this thesis, the following concept for employment of the airmobile division against insurgent forces in an

underdeveloped area is proposed. While developed through the theoretical interplay of the airmobile division, insurgent forces in South Vietnam, and the geography of that area, it is reinforced by the experiences of the 1st Cavalry Division (Airmobile) during its first months of combat in Vietnam.³

For a division mission to locate and destroy insurgent forces in a specific area the concept of operations must provide for massing sufficient forces to fix and destroy a located enemy force of significant size. When the enemy threat merits, the bulk of the division's maneuver and combat support units may be formed into brigade size airmobile task forces for employment in a relatively small area. The main body of each brigade is kept in reserve while operations are undertaken to locate a suspected insurgent force and to define its strength, composition, and dispositions.

Proposed: Operations are conducted by self-sustaining elements of relatively large size that operate from mobile bases.

Airmobile task forces of brigade and battalion size are employed to conduct offensive operations in an assigned area to locate, fix, and destroy insurgent forces. As larger insurgent forces are located, two or more brigade size airmobile task forces may be committed to engage and destroy them.

³Personal letter from William Roll, Maj, Inf, S3, 1st Battalion, 12th Cavalry, 1st Cavalry Division (Airmobile), 21 January 1966.

Efforts to locate the enemy depend on a coordinated aerial and ground search. Ground patrols are positioned by air; aerial observations are confirmed by ground patrols if the enemy situation permits. Once enemy presence in a specific location is established, both air and ground reconnaissance are intensified to determine the size of the force, its organization of the ground, avenues of egress open to it, and available landing zones. Every effort is made to deceive the enemy as to the interest or possible intentions of the airmobile force. However, considerations of security are paramount and must take precedence over surprise, and reconnaissance is pursued to gain necessary intelligence, especially of the condition and defenses of landing zones.

Proposed: Intelligence for airmobile operations is characterized by a high degree of centralized planning in the pre-assault phase, decentralized control during the execution phase, and coordinated aerial and ground reconnaissance with heavy reliance on ground collection means throughout all phases of the operation.

Extensive ground patrolling by organic units and indigenous teams is conducted to locate insurgent forces. These patrols may be supported by helicopters that move them to clandestine landing zones from which they can patrol by stealth.

Every effort that can be made in good faith is advanced toward gaining the cooperation of the local populace in providing information of insurgent forces. Indigenous intelligence teams are essential to counterinsurgency operations in a host country.

As intelligence permits, small forces are committed to make unopposed landings in order to block anticipated avenues of egress and to secure landing zones for elements of the main body. Howitzer batteries are positioned by helicopter and the enemy is taken under fire by all available surface and aerial fires. Elements of the main body are landed in secure landing zones in unopposed landings and move to further restrict the maneuver of the insurgent force.

Propose Operations are carried out to locate, fix, and destroy enemy forces or to seize terrain objectives which prevent enemy withdrawal, reinforcement, supply, or the shifting of reserves.

Firepower and maneuver are employed to develop the enemy situation, fix enemy forces, reduce enemy firepower, limit enemy maneuver capabilities, and to provide an advantage prior to attacking to destroy him. Should the enemy endeavor to withdraw, actions to fix him are repeated.

Airmobile forces are landed on undefended objectives or in undefended landing areas for subsequent ground attack to secure defended objectives.

Maximum fires are applied until infantry units are positioned. Finally, a coordinated ground attack is made by the infantry with supporting fires shifting to assist in blocking avenues of egress.

Proposed: After an insurgent force has been fixed maximum aerial and surface fire support is applied, followed by a coordinated ground attack to close with and destroy or capture the enemy.

Large scale employment of airmobile forces is in the

process of revolutionizing warfare. Traditional barriers to surface maneuver are hurdled, and operations are conducted with a tempo and over distances unimaginable a few years ago. Airmobile operations offer opportunities for speed, flexibility, surprise, and exercise of initiative in battle; at the same time they demand superior intelligence and special consideration for security. The air assault concept places full emphasis on the offensive capabilities of the airmobile division, occasionally without regard for its limitations. The military geography of an area such as Vietnam constitutes a hostile environment for the airmobile division. Insurgent forces, taking maximum advantage of geography, pose a worthy opponent, able to give a good account of themselves. Even so, the airmobile division has a significant combat power advantage that, if intelligently employed, can bring victory in every battle. A concept has emerged in this thesis that is proposed for this purpose.

APPENDIX

GLOSSARY

Aerial command post: UH-1D helicopter with radio console, in which the commander of an airmobile task force and selected staff may operate during an airmobile operation.¹

Aerial rocket artillery: UH-1B helicopter armed with 2.75in rockets; provides direct fire from an aerial platform.²

Aerial weapons ship: UH-1B helicopter armed with 7.62mm machine gun and 2.75in rockets; provides aerial escort for airmobile elements and suppressive fires.³

Air line of communications: An aerial route which connects an operating military force with a base of operations along which supplies and reinforcements move.⁴

Assault helicopter: UH-1D helicopter; provides tactical air movement of maneuver units.⁵

Assault support helicopter: CH-47 helicopter; provides tactical air movement of maneuver and combat support units, supplies, and equipment.⁶

¹U.S. Army Combat Developments Command, The Division (Air Assault Division Supplement), ST 61-100-1 (Fort Belvoir, Va.: Combat Developments Command, 25 June 1964), p. III-1.

²Ibid., p. 3-2.

³Ibid., p. 3-2.

⁴U.S. Army Combat Developments Command, Air Lines of Communication (AirLOC) Operations, In Support of the Air Assault Division, ST 55-7 (Fort Belvoir, Va.: Combat Developments Command, June 1963), p. 2.

⁵Combat Developments Command, The Division, p. 3-3.

⁶Combat Developments Command, The Division, p. 3-3.

Battalion base: Base of operations containing elements necessary to support battalion operations.⁷

Brigade base: Base of operations containing elements necessary to support brigade operations; includes elements similar to those found in the division base.⁸

Division base: Base of operations containing elements necessary to support division operations; includes elements of division artillery, support command, aviation group, and an instrumented airfield; may contain the division main command post, the division reserve, the maneuver, combat support, and combat service support units, and the division rear echelon.⁹

Landing zone: An area in which troops, equipment, and supplies are landed for participation in airmobile operations.¹⁰

Logistic base: Base located in the field army service area or other secure area from which elements of the field army support command, or other tailored combat service support units, provide logistical support to the airmobile division; rear terminus of surface and air line of communications to division and brigade bases of operation.¹¹

Pickup zone: An area in which troops, equipment, and supplies are loaded into helicopters for participation in airmobile operations.¹²

⁷Combat Developments Command, The Division, p. 6-5.

⁸Combat Developments Command, The Division, p. 2-2.

⁹Combat Developments Command, The Division, p. 2-2.

¹⁰The 11th Air Assault Division, Air Assault Techniques and Procedures (Fort Benning, Ga.: Headquarters The 11th Air Assault Division, 1 August 1964), p. 2.

¹¹Combat Developments Command, AirLOC Operations, pp. 4-5.

¹²The 11th Air Assault Division, Techniques and Procedures, p. 2.

Weather minimum: The worst weather condition under which operations may be conducted; usually prescribed as a minimum visibility and ceiling and/or hazard to flight.¹³

¹³Combat Developments Command, The Division, p. 7-9.

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